DOCUMENT RESUME

ED 264 168 SO 016 951

AUTHOR	Robinson, John P.; And Others
TITLE	Public Participation in the Arts: Final Report on the 1982 Survey.
INSTITUTION	Maryland Univ., College Park. Survey Research Center.
SPONS AGENCY	National Endowment for the Arts, Washington, D.C.
PUB DATE	Oct 85
NOTE	559p.; This edition supercedes ED 256 682. Data tables contain small print that may not reproduce clearly.
PUB TYPE	Reports - Research/Technical (143)
EDRS PRICE	MF02/PC23 Plus Postage.
DESCRIPTORS	*Art Activities; *Citizen Participation; Comparative Analysis; *Museums; *Music; National Surveys; Social Science Research; *Theater Arts; *Visual Arts

ABSTRACT

More than 17,000 respondents from a representative sample of the population were interviewed by the Bureau of the Census during 1982 about their participation in arts activities. Separate national samples were collected during each month of the year. Ten major areas were addressed: (1) the size of the audience for the arts; (2) the relationship between attendance at live performances and recorded performances; (3) geographical variation; (4) demographic variation; (5) the impact of family background on participation; (6) the association between arts and non-arts activities; (7) the extent and nature of unmet needs; (8) reasons for not attending arts activities; (9) the relationship between amateur performance and attendance; and (10) the relationship between early introduction to the arts and later participation. Chapter 1 provides an introduction and background information. Chapter 2 details interview procedures and methodology. Chapter 3 examines the questions asked about participation at live performances of jazz, classical music, opera, musicals, plays, ballets, art galleries, and museums, as well as questions about reading habits. Chapter 4 examines the methodology and gives a more detailed analysis of the questions considered in Chapter 3. Chapters 5 through 9 deal with the non-core survey questions. Chapter 10 is an overview of the project. Extensive appendices dealing with documentation, methodology, and a comparison with an earlier Harris poll survey are also included. (LH)

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PUBLIC PARTICIPATION IN THE ARTS:

FINAL REPORT ON THE 1982 SURVEY

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October 1985

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Prepared in Fulfillment of
Grant 12-4050-003
Research Division
National Endowment for the Arts

PUBLIC PARTICIPATION IN THE ARTS:
A PROJECT SUMMARY OF THE 1982 SURVEY

The 1982 Survey of Participation in the Arts (SPA'82) represents perhaps the largest single survey of the cultural activities and attitudes of the American public. In this national survey interviews were completed with a probability sample of 17,254 respondents across the country. The SPA'82 interviewed a separate national sample of almost 1500 respondents over age 18 in each month of 1982.

The SPA'82 data were collected by the United States Bureau of the Census to ensure that they met rigorous scientific standards of sample design, respondent cooperation and interview standardization. This also ensured that these arts participation data could be projected to the national population with unprecedented confidence.

SOME GENERAL FINDINGS

Attendance at Live Arts Performances: Extensive data were collected on the public's reported attendance at seven "core" types of live arts performances and events. The following levels of annual participation rates was found across the seven art forms:

Opera	3%
Ballet	4%
Jazz	10%
Plays	12%
Classical Music	13%
Musicals	19%
Art Museums	22%

Almost 40% of all SPA'82 respondents reported having attended at least one of these seven types of live arts performance in the previous 12 months.

In addition, more than 3% of the sample, representing almost 5 million American adults, reported that they themselves had appeared in a public performance of one of these types of arts events in the previous year.

SURVEY METHODOLOGY

Respondents in the survey were part of a larger continuously rotating panel of respondents who are interviewed every six months over a three year period. These individuals lived in households selected by the U.S. Census Bureau to be randomly representative of the total U.S. adult population 18 years of age and older. Census Bureau population counts were used to draw the sample in such a way that all individuals living in households in the United States had a known and equal chance of selection.

All individuals aged 18 and over in these selected households were eligible to be included in the survey. Less than 15% of all eligible individuals in these selected households could not be interviewed. The final data were weighted slightly to ensure that the final sample was completely representative of the 1982 U.S. population in terms of age, race and gender.

About three-quarters of these interviews were conducted face-to-face in the respondent's home. Respondents who were not at home at the time of the interviewer's visit were interviewed by telephone. No effective differences were generally found between these in-home interviews and the telephone interviews. The interview took about five minutes to complete for the first ten months of 1982 (i.e., January through October); it took about 20 minutes to complete for the longer interviews conducted in November and December, which included all of the questions in the survey.

Each month's interview began with the survey's "core" questions, which referred to general arts participation during the previous 12 months. A second set of "rotating" items (about arts socialization, mass media usage, music preferences, etc.) then completed the interview; the November and December interviews contained all of these rotated items, which made the interviews longer than those conducted in January through October.

The completed questionnaires were returned to the Census Bureau in Suitland, Maryland, where they were edited for final keying onto a computer tape. These coded survey answers were then merged with the coded data on each respondent's background (e.g., age, education, race) obtained in the panel part of the Census Bureau survey. These background data were then weighted to reflect U.S. population characteristics and projected to the total U.S. adult population.

Several statistical analyses have been applied to the SPA'82 data: cross-tabulations, correlation coefficients and odds-ratios. The data were also subjected to factor analyses and cluster analyses to identify basic underlying dimensions of activity participation and preferences. These were used to construct indices of various characteristics: single numbers that indexed or summarized each respondent's overall attendance at arts performances or arts socialization experiences, for example.

In addition, special tabulations were produced by a computer program called Multiple Classification Analysis (MCA). The advantage of MCA is that it can produce estimates of the participation of population sub-groups that are "purified" or adjusted for the statistical effects of other factors. These adjusted figures are preferable to simple percentage differences, which can be misleading if they are largely a function of other variables that predict participation (like education or age).

Audience Characteristics: The segmentation of the public attending these seven types of arts events followed a fairly regular pattern. Thus, attendance at live arts events was:

- Mainly related to a person's socio-economic background, particularly in terms of education, but also in terms of occupation and income;
- Higher among women than among men (being particularly high among unmarried women with no children);
- Higher among middle-aged and younger adults than among older people;
- Lower among rural residents than among people living in urban or suburban areas; lower also among residents of the South than other regions;
- Slightly higher among unmarried adults than among married people -- and slightly higher among adults with no children living in their household (than among adults with children in the household);
- Lower among respondents who were not in the labor force (full-time homemakers, retired, unemployed, etc.) vs. those who were employed in a paid job;
- Higher among white respondents than among blacks or other racial groups.

Many of these population background differences, however, did not hold up after other factors were controlled statistically. In particular, the differences by income, by age, by urbanicity, by region, by employment status and by race were considerably reduced or eliminated after statistical control for other factors -- especially after control for the respondent's gender and educational background.

It would not seem appropriate therefore, to consider these other demographic factors as important determinants or predictors of arts participation. That is not to deny there are some interesting differences to be found across income, age, geographic, and other demographic categories, only that they are not of major significance in differentiating arts activity in the American public.

Other Arts Activities: The SPA'82 data also provided baseline information on several other arts-related activities. For example:

- 84% of the respondents said they had read any book or magazine in the past 12 months; over half (56%) reported they had read a novel, short story, poem or play over that period.
- A fifth of respondents (20%) reporting reading poetry or listening to a poetry reading.
- Some 39% of respondents said they had attended an arts or crafts fair in the previous year.
- Some 37% of respondents reported visiting an historic site for its historic or design value.

In addition, substantial proportions of respondents (representing between 10 and 18 million American adults) reported participating more directly in arts activities. Some 11% reported making photographs, movies or videotapes as an artistic activity in the previous year; 10% reported painting, drawing, sculpturing or printmaking; and 7% reported having done creative writing in the form of short stories, poems, plays, and the like. Furthermore, 11% of respondents said they had taken a lesson in some arts-related activity (e.g., literature, music) in the previous 12 months, and over 3% reported doing some form of "backstage" work (lighting, sets, promotion) in connection with a live arts performance.

It might be thought that participation in these other arts-related activities might take time away from or otherwise interfere with attendance at the seven types of arts events noted above. However, the SPA survey found exactly the opposite. The more particular individuals participate in these other arts-related activities (e.g., painting, taking lessons, visiting historic sites, making photographs), the more they attended arts performances and events.

This principle, referred to as "the more, the more", is found throughout the topic areas examined in the SPA'82 study. As has been found in other leisure activity studies of the public, the more-more pattern is a recurrent and dominant theme in this study, also applying to the survey questions related to mass media usage for arts-related content, to the survey questions related to prior lessons or other "socialization" experiences in music or the arts, to the questions related to preference for more serious types of music, and to the questions related to expressed interest in attending more arts performances and events. The principle applies to most non-arts activities as well: the more active and extensive a person's leisure activities and interests are, then, the more likely that person is to attend arts events and performances. The main exception found in this study was for the activity of general watching of television.

Arts Participation Index: The more-more principle is particularly in evidence for the core arts questions. In general, people who attend one of these types of arts performances are considerably more likely to attend each of the others. Thus, the attendance rate for classical music performance among people who attend opera is 63%, while the attendance rate at classical music performances for people who do not attend opera is only 11%. That means that opera-goers are 5.6 times more likely to attend classical concerts as are non-goers.

Ratios of roughly this magnitude were found across all pairings of the eight core arts questions (e.g., the overlap of jazz with ballet audiences, or the overlap of audiences for musicals and for stage plays). They obviously indicate considerable overlap across arts audiences rather than a pattern of segmentation of the arts audience into jazz fans, opera buffs, etc.

In order to facilitate analyses of the core questions in the report, therefore, a simple index of arts participation was constructed for each respondent. On this index, each respondent was given one point for each separate type of arts performance attended. Thus, a person who attended opera and ballet performances was given a score of two; a person who attended opera, ballet, and classical music concerts was given a score of three. (In no sense do these calculations imply that participation in one art form is equivalent to or substitutable for participation in another art form. It simply facilitates an examination of the range of respondent arts activities for statistical analysis.)

With about 40% of respondents participating in at least one arts activity in the previous year (receiving scores of 1 through 8 depending on the number of separate events they attended) and the remaining 35% of non-attendees receiving a score of zero (0) on the index, the overall average score for the entire sample on this arts participation index worked out to be 0.83 activities.

TEN POLICY QUESTIONS

The SPA'82 was designed to answer ten major policy questions of importance to the National Endowment for the Arts. As described and elaborated upon by the Endowment's Research Division, these ten questions were:

1) *How large is the current audience for individual arts and for the arts as a whole?* As noted above, in terms of the survey's core questions asked of all respondents in the survey, almost 40% of the SPA'82 sample reported that they had attended one of the seven arts events.

   Follow-up questions identified differences in *frequency* of participation among those people who attended these seven activities. For example, among respondents who reported going to art galleries/museums and to live jazz music performances in the previous month, the average estimated number of such attendances were 1.7 per month; among those who attended live performances of ballet and musical theatre, the average estimated number of performances attended was 1.3 per month.

   Consistent with the more-more principle, considerable overlap was found across audiences for the various arts forms. People who attended one type of arts performance were 2 to 10 times more likely to attend another. For example, people who attended opera were more than 3 times more likely to attend a classical music performance than were non opera-goers. Few distinctive clusterings of arts participation were found. Thus, the idea of segmented arts audiences was not supported by the SPA data.

2) For the performing arts, what is the relationship between attendance at live performances and participation via television, radio, and recordings? Consistent again with the more-more principle, respondents who report watching or listening to arts-related content in mass media programs are also more likely to attend live arts performances. Some 28% of respondents who reported watching a jazz program on television attended a live jazz performance, compared to only a 10% attendance rate at live jazz performances for the overall sample (and a 6% rate who said they had not seen a TV jazz program). Approximately the same ratios held for listening to jazz on the radio (32% attendance among jazz radio listeners vs. 6% among non-listeners) and on recordings (32% vs. 4%).

The more a person used the mass media for arts-related programs the greater likelihood of attendance. Thus the attendance rate for live jazz performances rose to 44% among respondents who listened to jazz music on all three media (TV, radio and recordings).

Far higher proportions of respondents followed arts-related content in the mass media than attended parallel arts performances in person. Thus, compared to the 10% who attended a live jazz performance, 32% of respondents said they had listened to jazz music on one of the three media of television, radio or recordings.

Roughly equivalent proportions of the sample had heard jazz music on television (18%), on radio (18%) or on records or tapes (20%). About the same proportion of the sample had heard classical music on each of the three media: television (25%), radio (20%) and recordings (22%). Some 38% had heard classical music on at least one of these three media.

However, television was the dominant medium for the other five art forms, moreso for plays and ballet than for opera. For opera, the media usage figures were TV (12%), radio (7%) and recordings (8%), with a total of 18% hearing opera on at least one of these three media. For musicals the figures were 20% for television, 4% for radio, 8% for recordings and 37% for all three media.

3) *Does the extent and nature of arts participation vary with geographic region and with community type and size?* Two major geographical factors were examined in SPA'82: whether the respondent lived 1) in a central city located within a metropolitan urban area or 2) within an SMSA but not in the central city, or 3) outside an SMSA — and whether that location was in the Northeast, Northcentral, West or Southern region of the country. (Census Bureau regulations on respondent confidentiality severely restrict the extent of geographic differences that could be examined in the data.)

SMSA Areas: Residents of central cities within an SMSA were more likely than average to participate in the arts, reporting about half again as much arts participation as people who lived in non-SMSA areas. However, residents within an SMSA but not in the central city reported about as high a participation level as those in the central cities. This could be because of the greater presence of more educated and younger adults living within SMSA's but outside the central city.

After control for these and other factors that distinguish respondents from different SMSA areas, the participation levels for respondents inside SMSA's but outside central cities was reduced to about the average for the entire sample. However, the participation rate for non-SMSA respondents rose significantly. After adjustment, non-SMSA participation rates were only about 25% lower than those for residents of central cities, and not the 50% lower figure found prior to adjustment.

This adjusted analysis thus suggests that the greater access to arts performances for central city residents may be a factor in their greater participation. Moreover, SMSA residents outside the central city area do not participate more than average once other factors are taken into account. SMSA differences in arts participation were proportionately greater for ballet and opera than for attending classical music, which was more similar across SMSA areas.

Region: Residents of the Northeast region were higher on the index of arts participation than residents in the Northcentral or Western regions. Lowest participation was reported in the South, at about a 20% lower rate than in the Northeast.

These regional differences again reflect differences in education, age, race and other background factors across regions. Once these regional differences in background factors are taken into account, arts participation differences virtually disappear. The Northeast remains the most active region, but less than 1% higher than the Northcentral region and less than 7% higher than the West and the South.

A more detailed analysis of locational factors divided the country into the 24 separate areas by region and by specific large cities in each region. As expected, people living in the larger cities--New York, San Francisco, Washington-Baltimore, Boston and Chicago--had the highest proportions of active arts participants; relatively high participation levels were also reported in the smaller cities in the Western states.

After controls for demographic differences across these locations, only the much higher figures for New York City and for smaller cities in the West remained. While specific areas that were high on particular art forms are discussed in a later section, it can be noted here that New York City residents (but not its suburban residents outside the city) were substantially above average in attendance for most types of arts events -- with the exceptions of jazz and classical music concerts.

After adjustment, highest attendance at classical music performances was reported in smaller Western cities, while highest attendance at jazz performances was reported by Detroit area residents. After the other factors were taken into account, participation scores for the other cities noted above were considerably reduced.

4) What is the relationship between an individual's social, economic and demographic characteristics and the individual's participation in the arts? The major predictors of virtually all forms of arts participation are those related to the respondent's socio-economic background, in terms of education, occupation and income. Levels of participation tend to be slightly sharper for education than for occupation or income, but it is clear that each socio-economic factor is associated with higher attendance or participation for all art forms.

However, these three socio-economic background measures are highly related to one other. People with more years of education are more likely to be employed in jobs with professional and managerial responsibilities, which in turn are more likely to provide them with higher incomes.

A multiple regression analysis shows that education emerges as the main independent predictor of arts participation. Both income and occupation decline notably as independent predictors once education is taken into account. This statistical analysis suggests that the differences in attendance levels by income and occupation can be mainly linked to the higher levels of income and occupation of people with more years of formal education. In other words, it is not their higher income per se that explains why affluent people attend more arts performances according to this analysis; it is generally because more affluent people have more years of education.

The same pattern is found for occupational differences. However, certain important income and occupational differences do remain even after education and other background differences are taken into account. Respondents in more "people-oriented" jobs are more likely to be arts participants than those in "data-oriented" or "thing-oriented" jobs. For example, in the case of professional occupations, employees in technical and engineering fields are less likely to participate in the arts than are teachers, lawyers or people who work in the social sciences and humanities. The same is true for the income factor in the case of respondents who earn more than $50,000 per year.

Other major demographic factors related to arts participation include gender, age and race. Differences in arts participation patterns by these factors indicate that higher arts participation is associated with being female, middle-aged and white . However, since each of these factors is affected by other factors (especially by differences in the person's level of education), their effect also needs to be examined in the context of these other factors.

Gender: Women report about 25% more participation in the arts than do men. However, when one takes into account their differing education and occupational backgrounds, women participate even more than men of equivalent backgrounds.

More detailed analysis also reveals that women who are unmarried and with no children are particularly more likely to attend arts events -- both in relation to unmarried men and in relation to married women.

Age: In general, reported participation is highest among middle-aged people and lowest among older people; participation by 18-24 year olds is slightly lower than for middle-aged groups. These unadjusted figures indicate that attendance begins to decline at age 45, and drops to two-thirds of its peak level among 65-74 year olds and to half of that level past age 75.

The adjusted figures tell a somewhat different story. They indicate fairly constant levels of attendance for all age groups up to age 75, including those aged 65-74. Attendance among even the oldest group (aged 75+) drops to only about 20% below average, once one takes into account their other background characteristics.

Race: Whites report half again as much participation as blacks and 20% more than "other" racial groups. However, this picture is changed somewhat after statistical adjustment. Taking their different educational levels, SMSA locations and other background characteristics into account, black participation remains lower than white participation -- but only about 20% lower. The rate for "other" racial groups (mainly Asian Americans) is over 50% less than that for whites, once other factors are controlled.

The SPA'82 analyses also revealed that a person's early socialization experiences, as well as their current family background, has an effect on arts participation. These early background factors include the educational background of one's parents, parental arts-related behavior and lessons or classes related to the arts. These factors are examined under Policy Question 10 below.

5) What effect does family background have on participation in the arts? In addition to the education, occupation and income analyses just discussed, other household variables were also studied for their impact on arts participation. Several variables initially show differential levels of participation, but statistical control for related background factors reduces these differences considerably:

Marital status: Never married and divorced individuals report the most active arts participation on the average. Widowed and separated individuals are least active, at a rate of about 40% below that of the divorced or never married. Married people are only slightly below average in participation.

However, marital status categories are strongly related to other factors, particularly age. After control for those factors, few of these differences by marital status are maintained. Married people report slightly below average participation, but less than 10% below the average for unmarried respondents. While marital status *per se* shows little effect on participation, the arts participation of one's spouse is an extremely important determinent of a person's arts activity. If one's spouse attends particular types of arts events, the likelihood that the respondent will as well is over 50% for each type of arts activity.

Presence of Children: Having younger and more children in the household is associated with less arts participation. But the differences are not pronounced. Presence of children under the age of 6 is a more important factor than the number of children, but even people with 2 or more children under 6 years of age report only about 20% less participation on the index than those with no children. These differences tend to hold up after statistical control and lead to the conclusion that presence of younger children in a household does have some inhibiting influence on arts attendance, but not as large an influence as might be expected.

Work hours: In general, it can be seen that people who report longer work hours do report much less arts participation. For example, people working over 50 hours per week actually attend more arts events than people who do not work at all. This difference is, of course, highly related to age and education--since so many elderly people (who are also less educated) do not work; unemployed people also have less formal education.

Once these factors are controlled, people who do not work emerge as more active arts participants. However, people with the longest working hours are still very close to average in their arts participation.

In general, then, these family and household factors tend not to be strongly related to arts participation. This suggests that if people are interested or involved in the arts, they will find some way to fit it into their schedule.

6) Are there patterns of non-arts activities which are associated with arts activities? Among the potential barriers to arts participation are the other activities that can compete for a persons's leisure time. A series of 14 such leisure activity or life-style questions were included in SPA'82; they dealt with such general leisure activities as sports or doing home repairs.

Far larger proportions of the sample reported engaging in most of these general leisure activities than was the case for the core arts questions. For example, 84% reported reading any book or magazine in the previous 12 months, 65% playing cards or other games, 63% going to the movies, 60% gardening and 60% doing repairs and home improvements. Responses to these questions, therefore, indicate a considerable amount of the public's leisure activity is unrelated to the arts. This might be seen as competing with the arts for the public's leisure time.

However, rather than interfering with arts participation, attendance at arts performances was progressively higher among people who reported participation in more of these non arts-related leisure time activities. The proportions participating in an arts activity in these more active groups are at least double those in the least active groups and for certain activities are up to 20 times higher. The one exception is for general television viewing -- heavier TV viewers attend fewer arts performances than do lighter viewers.

Again, these ratios decrease somewhat after control for other factors, particularly for education and age--which are major predictors of participation in general leisure activities, as well as in arts activities.

At an individual activity level, the four general recreational activities that were somewhat more closely associated with attendance at arts performances were reading books and magazines, attending movies, preparing gourmet meals and visiting zoos, aboretums, and the like.

Movie-going was particularly strongly related to attending jazz, musical, play and ballet performances; volunteer and charity work to attending operas and musicals; and preparing gourmet meals to ballet attendance. In general, however, there did not seem enough individual variation in the pattern of correlations among these general leisure activities to strongly suggest any more specific "life-style" factors (e.g., at-home vs. away-from-home activities) that predicted higher arts participation. The simple more-more principle seems to provide a simpler and more appropriate depiction of the relation between arts participation and leisure activities.

7) What are the extent and nature of unsatisfied demand for arts individually and as a whole? Respondents in SPA'82 were asked whether they would prefer to attend more arts events than they had in the previous 12 months. The question was asked for seven core arts activities, and it was asked of respondents whether they had attended or not attended such an event in the previous year.

The proportion of respondents wanting to attend more events was much larger than the actual proportion of attenders for each type of arts event. For example, in contrast to the 10% who had attended a live jazz performance, more than 18% of respondents wanted to go to (more) jazz performances. It would appear that latent demand for jazz, as for other art forms, extends far beyond what people now attend.

This latent demand for ballet performances is particularly high in relation to current levels. In contrast to the less than 4% of respondents who attended a ballet performance in the previous year, for example, over three times as many people (12% of the sample) said they wanted to attend.

Overall, about a third of the sample (32%) seemed definitely not interested in the arts: they had neither attended any of the seven types of arts events nor said they wanted to attend any. Nearly the same proportion of the sample (29%) said they wanted to attend, but did not attend any of the arts events. The remainder of the sample (39%) were arts attendees, divided between that 34% who had attended and wanted to attend more, and that 5% who had attended but were not interested in attending more.

In all art forms, proportionally higher numbers of current attendees want to attend more arts events than do current non-attendees. In fact, except for opera, majorities of those who currently attend want to attend more; in comparison, no more than a quarter of those who did not attend want to attend more for any activity. This is of course a further example of "the more, the more" phenomenon.

At the same time, greater absolute numbers of current non-attendees want to attend than don't want to attend. Put in other words, arts planners have a greater per person receptivity to develop an expanded audience for any art form by contacting attendees; but there are greater numbers of non-attendees who say they wan't to attend (although again less than a quarter of those people say they want to attend). This could present something of a paradox about different marketing strategies for the two groups.

The two sets of questions (attendance and preference for more attendance) generate four types of individuals for each art form:

1) Those who had attended and did not want to attend more
2) Those who had attended and did want to attend more
3) Those who had not attended but did want to attend (more)

4) Those who had not attended and did not want to attend (more)

These groupings can be recombined to show a further paradox regarding which art forms have greatest potential for increased audience. In terms of absolute numbers of people who may want to attend more, these figures show the following unmet audience potentials:

Musicals	25 million people (want to attend more)
Plays	21 million people
Art Museums	15 million people
Jazz	15 million people
Ballet	14 million people
Classical Music	11 million people
Opera	9 million people

These numbers are obtained by subtracting the estimated numbers who say they want to attend (more) from the estimated numbers who currently attend.

However, summing these figures as ratios of the numbers who want to attend divided by the numbers of those who do attend gives virtually the opposite impression:

Opera	3.5
Ballet	3.4
Jazz	3.9
Classical Music	3.8
Musicals	2.8
Plays	2.8
Art Museums	2.5

In other words, three and a half times as many respondents said they wanted to attend opera as currently attended, compared to only a two and a half to one ratio for attending art museums.

Ballet and opera, then, show the greatest potential in terms of proportionate growth. But these numbers are also largely a function of the present lower levels of attendance for ballet and opera. At the same time, this higher potential for ballet and opera is reflected in several other proportions: of those who want to attend in relation to those who do attend, of those non-attendees who want to attend in relation to attendees who want to attend more, and of those who want to attend in relation to all non-attendees.

8) What reasons do those who say they would like to attend arts activities more often give for not doing so? Respondents who said they wanted to attend more arts events gave several reasons for not attending more. The pattern of responses to this "arts barrier" question was remarkably similar -- both across the seven art forms and across attendees and non-attendees. The major barrier respondents perceived for not attending more was a personal one, described as "lack of time". This response stands in marked contrast to findings regarding the factors that mainly restrict the free time people seem to have available, which were considered under Policy Question 5.

The second and third most important barriers were cost factors and accessibility factors. The accessibility factor was given as a particularly important reason for not attending art museums more often. Other barriers mentioned with more than average frequency across arts activities were the performances being too far away, problems finding someone to go with and lack of sufficient personal motivation.

9) How is amateur participation related to attendance?

As noted above, about a tenth of SPA'82 respondents said they had made photographs as an artistic activity, or had done painting, sculpturing or creative writing in the previous year. The relationship of such active personal arts participation to the core SPA arts participation questions was examined, as well as that for more passive spectator arts activities.

Overall core arts participation was considerably higher among respondents scoring high on an index combining these amateur activities (like photography, painting, sculpture, creative writing) and spectator arts activities (like visiting arts/crafts fairs or historic sites). Respondents who reported 5 to 12 such activities were up to five times more likely than the rest of the sample to participate in the seven core arts activities as the rest of the sample.

Certain of these amateur and other arts activities were related to attendance at arts performances at a higher level than other activities. Among amateur arts activities, respondents who did creative writing or created visual arts works were particularly more likely to attend jazz and ballet performances. Those who did "backstage" work at arts performances were particularly more likely to attend ballet and stage plays. Among spectator arts activities, visiting science museums, historic sites and arts/crafts fairs was highly related to visiting at museums, attending ballet and classical music performances.

In general, however, the more active, participatory arts-related activities (such as painting or creative writing) were more closely related to the arts particpation index than "spectator" activities (visiting science museums or historic sites).

10) How does formal instruction and training in the arts and early exposure while growing up affect later participation? The survey examined instruction and training experiences at various other times in people's lives, such as lessons, appreciation classes, and parental example or encouragement.

The forms of arts socialization most frequently reported in the survey were through music lessons (47%) and parental encouragement of independent reading (67%). In addition, nearly a third of the sample (31%) reported having taken lessons in some craft (such as pottery or weaving) at some time in their life, and nearly a quarter (24%) reported taking a class in one of the visual arts; one in five (20%) reported having taken art appreciation classes. Also, close to a third of respondents said their parents had taken them to art museums or to live arts performances, and almost a third said their parents at least occasionally listened to classical music or opera when they (the respondents) were growing up. In all, only 17% of the sample said they had experienced none of these varieties of arts socialization.

There are some distinct age differences concerning when these socialization experiences occurred for this sample of adults. Almost half of those who took music lessons (and about a quarter of the entire sample) reported taking music lessons before they were 12 years old; this pattern of early socialization was also the case for almost three-quarters of those respondents who had taken ballet lessons. Most of those who took lessons in the visual and other arts forms (acting, writing, crafts), however, took lessons when they were between the ages of 12 and 17; 31% of all respondents also reported taking music lessons during this period in their lives.

The peak years for appreciation classes, however, were "the college years" between the ages of 18 and 24. At least one respondent in ten reported having taken such a class at that point in their lives, and roughly one in ten reported taking lessons in music, visual arts media, creative writing and crafts activities. Except for the slight increase in crafts activities, reported participation levels in all classes and lessons dropped dramatically past age 25. It would appear that most arts learning and training experiences are largely confined to those periods in peoples' lives when they are under the age of 25.

Consistent once again with the more-more principle, people who report more socialization experiences also report higher attendance at related arts events. For example, respondents who had taken music lessons, who had music appreciation classes, or who had parents who listened to classical music were about three times more likely to report attending a live jazz performance or a live classical music performance as were respondents who reported not having grown up with such experiences; they were also more likely to attend operas and musical theater. The strongest impact on adult arts participation was found for ballet: those who report having had ballet lessons were up to 7 times more likely to attend a ballet performance than those who had not had such lessons.

People who had taken both music lessons and music appreciation classes are more likely to attend live classical music performances than are people who have taken only one or the other. However, both socialization and attendance are related to common demographic factors, like education and age. When these factors are controlled statistically, the differences between socialized respondents and non-socialized respondents diminish considerably — generally to about half the differentials noted above. Thus, as was the case with exposure to the mass media, people reporting various arts socialization experiences (usually in their teen-aged years) appear to be half again as likely to report attending a related arts event as those who have not had such socialization experiences, other factors being equal.

CONCLUDING REMARKS

SPA'82 is a comprehensive body of national survey data concerning the American public's arts activities. It has identified major demographic determinants of arts participation, in particular a person's level of education. Within certain education categories, income, occupation, gender and age also seem to exert some influence on the public's arts participation. On the other hand, marital status, presence of children and paid work demands generally do not seem important inhibitors of arts participation. With a few notable exceptions for particular art forms, living in different geographical regions of the country, or in urban or rural areas, is not related to large differences in arts participation.

With regard to the influence of the other, non-demographic factors examined in SPA'82, there was a clear tendency for people already involved and active in leisure pursuits and arts-related activities to participate more. Thus, present arts participants are disproportionately likely to watch or listen to more arts-related content in the mass media, to like jazz or classical music more, to have been exposed to the arts through lessons or by their parents, to be more active in other arts-related activities and to be more generally active in other away-from-home leisure activities. Moreover, those who are already participating in the arts are more likely to say they would like to participate even more.

Among these factors, attention to the mass media emerged as the most important overall predictor of arts participation, indicating this to be a very important outlet or stimulant for arts appreciation. Nonetheless, as with all the factors in this study, it is not possible from a single survey to state definitively which factors are causes of arts participation and which are themselves affected by arts participation.

The present analysis represents only a brief first look at this very rich source of data on Americans' arts participation. Only now are certain local and regional arts agencies beginning to examine the relevance and applicability of these data for their own communities. Data are being collected in 1985 to detect trends and changes in arts participation, and future national surveys will be able to use the 1982 survey as a benchmark for determining long-term trends in the role of the arts in the daily life of the American public.

Much work has yet to be done to identify the idiosyncratic patterns of arts participation within important subsets of the American public: e.g., racial and ethnic groups, retired and unemployed people, low income groups and people living in more remote rural areas. The same is true for arts participation patterns within the same household, in relation to how the attitudes and behavior of husbands and wives (or children and grandparents) in the same household influence arts participation of other household members. Nor has much analysis been undertaken to identify important patterning or segmenting of arts activities for certain groups of individuals.

We should consider, therefore, that the analysis contained in this report only scratches the surface of the potentials of the SPA'82 data for future art planning and development. Data tapes, disks and "user-friendly manuals are currently being developed at the University of Maryland to aid in the process of disseminating these data to the widest possible audience and community of users.

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Chapter 1

INTRODUCTION

The 1982 Survey of Public Participation in the Arts (SPA'82) represents an important advance in our understanding of the nature and extent of the role of the arts in American daily life. While several national and regional surveys have been conducted on public participation in and attitudes about the arts in American life prior to SPA'82, they were subject to several limitations. The studies conducted up to 1980 had not adequately articulated a standard definition of arts participation for particular arts activities (e.g., opera, jazz). Nor had they fully or consistently examined various modes of arts participation as performer, audience member or user of the mass media. The incompatibility of question wording and of procedures employed in data collection across the various studies prior to 1980 limited their use in identifying trends in arts participation over time.

In addition, most of these studies depended upon telephone surveys, which, compared with personal interviews, tend to overrepresent the more affluent portion of the population. These problems were compounded by uncertainties about the response rates that could be obtained in such studies. They indicate the necessity, then, for a more systematic and definitive collection of arts participation data that could be generalized to the American population with suitable confidence and replicated regularly to track trends in participation.

PURPOSES OF THE SURVEY OF PUBLIC PARTICIPATION IN THE ARTS

The Survey of Public Participation in the Arts establishes for the first time the extent of public participation in specific arts activities in the United States. Such data can be used for several policy-making purposes in addition to estimating the number of arts participants. These include: (1) establishing a benchmark against which to compare future levels of arts participation; (2) identifying segments of the population that are more or less active in the arts; (3) determining factors that seem to stimulate or inhibit arts participation; and (4) identifying various types of arts participation. The data then will be used as a basis for identifying trends in arts-related behavior in the United States. Accordingly, we have designated the 1982 study with the acronym SPA'82 to distinguish it from future studies.

The data were collected in household surveys conducted by the U.S. Bureau of the Census, involving mainly personal interviews with a large cross-section sample of adult Americans (over age 18) as part of a larger social indicator study of the American population. The recognized quality and care of the Bureau's work is the major attractive feature of this data collection method. The Bureau's ability to collect standardized data with minimal distortion due to respondent noncooperation and sampling bias is unsurpassed.

The Census Bureau interviewed approximately 1500 respondents per month in 1982, so that arts participation data are available for over 17,000 respondents. The Survey Research Center of the University of Maryland consulted on the design and execution of the study and supervised the preparation of the data tapes, the subsequent analysis of the data and the preparation of this report.

ORGANIZATION OF THIS REPORT

Material in subsequent analyses in this report is organized into ten chapters. Chapter 2 examines in detail the field procedures and methodology used in the study, with further details given in Appendix A. Chapter 2 and Appendix A examine not only the field work and sampling aspects of the study, but also the questionnaire design, the procedures for coding and data processing and the basic analysis methods employed. Detailed examples are given of how the techniques of cross-tabulation, factor analysis, and the regression technique called "Multiple Classification Analysis" can be applied to the arts-related questions examined in this study. These analytic techniques are the main ones employed in Chapters 3 through 9.

Chapter 3 examines the "core" participation questions of attendance at seven types of live arts performances and events: jazz, classical music, opera, musicals, plays, ballet, and art galleries and museums; in addition, the reading of more serious forms of literature (i.e., novels, short stories, poems, plays) is included in this set of core questions. These eight core questions were asked in each of the 12 months of the survey and are thus available for all 17,254 respondents in the survey. (The "core" questions will be a phrase used throughout this report to refer to measurements of participation in these eight arts-related activities.) In addition, questions were included on participation as a performer in several of these types of activities.

Chapter 4 examines certain methodological features and more detailed specialized analyses of these Chapter 3 data on core question participation. Among the methodological questions addressed are: What seasonal or month-to-month variations can be found in arts-related activities? How internally consistent are respondent reports of monthly participation with their reports of annual participation? How consistent are audience attendance data from arts organizations, with other American surveys of arts participation conducted in this country, and with surveys of arts participation conducted in other countries? In addition, more detailed analysis of differences in participation is provided by the respondent's occupation and by the arts participation of the other members of the respondent's household.

Chapter 4 also briefly examines the various types of facilities or locations at which arts performances are attended, that is whether arts performances are seen in public or private facilities, in theaters, or in religious or educational institutions.

Chapter 5 is the first of the five chapters dealing with the rotating or "non-core" survey questions, which were asked only in certain months of the survey (the schedule of these rotating items varied month by month, as shown in Table 2.2 of Chapter 2). Chapter 5 deals with more general questions about leisure: namely items that asked respondents to describe their participation in other leisure and recreational activities. Some of these items were general activities (e.g., movies, gardening) and others were more cultural in orientation (e.g., poetry readings, visiting science museums). Answers to these items therefore, put each respondent's arts-related activities into the context of general everyday activity patterns, and allow one to examine the extent to which these activities seem either to stimulate or to inhibit arts participation.

Chapter 6 examines the extent to which the public uses the mass media for arts-related content. How many American adults watch theater or ballet on television? Do they listen to jazz or classical music on the radio, or on pre-recorded tapes and records? Responses to those media questions make it possible to measure the great extent of arts exposure and participation that takes place outside of attendance at live performances, as well as indicating how use of these media relates to attendance at live performances.

Chapter 7 examines the extent of the respondents' prior "socialization" into the arts. Socialization questions include having taken lessons or classes in music or other art forms, courses in music or art appreciation, and parental exposure to and encouragement of arts-related activities. These questions make it possible to examine the extent to which public participation is a reflection of this prior exposure to the arts. For example, how much of the arts audience is made up of people who have had such prior experience with the arts?

Chapter 8 deals with the respondents' interests in increased arts participation, and with the perceived barriers that respondents feel inhibit increased arts participation on their part. Barriers examined include not only external problems, such as cost or distance factors, but also internal factors like lack of personal interest and motivation. These questions therefore, reflect the "untapped" markets for arts exposure, and the factors that limit these potential arts audiences.

Chapter 9 is devoted to examining respondents' music preferences. What proportions of the public enjoy listening to classical music, to opera, or to jazz, rock or country-western music? How do these music preferences cluster together, and what is the demographic make-up of the audience for a particular type of music or music cluster? What is the relation of these music preferences to attendance at live arts performances?

Chapter 10 explores the relative strength of the major rotating survey questions in predicting participation in core arts questions. Arts socialization experiences, mass media exposure to the arts, music preferences, general recreation activities and arts-related recreation activities are compared in this respect.

As described further in Chapter 2, the exposition of survey material in Chapters 5 through 9 (and to a large extent Chapter 3) is organized in the following order of presentation:

1) Exact question wordings and the number of responses to each response alternative for each focal question for that chapter;

2) Percentages of the responses to each question;

3) Cross-tabulations of responses by basic demographic factors;

4) Adjusted cross-tabulation for these demographic factors by Multiple Classification Analysis;

5) Factor analyses of how these questions are mutually related in potential clusters of more strongly correlated variables;

6) Indices to summarize these variable interrelationships, as well as the demographic differences in these indices;

7) Relation of the responses to the individual questions in each chapter to the core arts participation questions (as reported in Chapter 3);

8) Relation of these indices (in each chapter) to the core participation questions.

Detailed information on the survey methodology is given in the next chapter, with fuller details provided in Appendix A. Readers interested in the survey results can proceed directly on to Chapter 3, although they may need to refer back to Chapter 2 for further explanation of the methodological techniques and conventions used in this report.

Chapter 2

FIELD PROCEDURES AND METHODOLOGY FOR SPA'82

The 1982 Survey of Public Participation in the Arts (SPA) interviewed a national sample of 17,254 persons, representing the adult public aged 18 and over, about their participation in the arts, their arts experiences and preferences. Interviews were conducted mainly in person in 12 separate months: from January, 1982 through December, 1982. Each month's sample was made up of a separate national cross-section sample of about 1,450 respondents.

The sample consisted of supplemental interviews in randomly selected households in a continuous omnibus survey conducted by the Bureau of the Census for various federal agencies. That panel study has been conducted regularly since July 1972. In the national sample of this omnibus survey, 72,000 households are visited over a three and a half year period, with new units replacing expired ones at the end of that period. It is a sample of housing units and not individuals. Respondents in these omnibus survey households are interviewed every six months over a three and a half year period for a total of seven interviews.

In order to have minimal impact on the responses to other parts of the survey, the SPA sample consisted solely of respondents in households in the final (seventh) round of the panel -- called the "exit rotation." That meant that most respondents had been interviewed before (up to six times over the previous three and a half years). The SPA survey questions thus came at the end of the seventh round of interviewing. Interviewing took place each month at approximately 10,000 households, of which about one-seventh were administered the SPA.

The same rules for confidentiality were applied to the SPA as were used for the larger survey. In each eligible household, all members who were 18 years of age or older were to be included in the SPA sample, thus making the sample self-weighting in terms of adult household composition. The SPA questions were asked immediately after the omnibus survey questions were completed. If the eligible respondent could not complete the SPA in person, it was completed by telephone.

It is unclear whether, or how much, responses to the SPA questions were affected by their being asked in this context of a seventh survey round with repeated questions about other topic areas. Respondents might have underreported participation in order to complete the survey more quickly (having learned that "yes" responses to further questions in the other parts of the survey) or because they saw these questions as some follow-up check on these questions. On the other hand, they might have overreported participation because they had little activity to report, wanted to please or impress the announced sponsors of the survey (the National Endowment for the Arts), or desired to portray themselves to interviewers as cultural, literate or sophisticated individuals. (Although no experimental survey evidence was collected to verify the extent of any such biases in reporting, a follow-up telephone survey conducted at the University of Maryland produced activity estimates that were close to those in the SPA, suggesting no major biasing effect of the field procedures used in the SPA.)

Outline of the Questionnaire

The SPA questionnaire was divided into two types of questions: a set of core items on annual arts participation, and a set of rotating items that surveyed correlated activity patterns and predictors of that participation. Table 2.1 shows the core participation items, which include questions both on participation at arts performances or events as an attendee (questions 1-7) and on participating in these same activities as a performer (questions 8 and 9). More detail on the extent of attendance at arts events was collected for the previous month as well as for the year (see Table 2.2 for the survey question sequence for each month).

Because the sample was chosen to be representative of the entire population of the country with a maximal response rate, the results of the survey can be extrapolated to produce fairly precise projections of the number of participants in each of several arts-related activities. It was designed to generate population estimates of the number of people who have visited an art museum, who have attended an opera, or who themselves have taken part in stage performances. Moreover, because of the size of the sample, it is possible to derive useful estimates from them for certain participation rates for the arts-- the proportion of arts participants in particular locations (e.g., more rural areas, New York City, the South), or from particular population groups (certain minority groups, less affluent segments, the retired). These analyses can identify patterns of participation on each of these factors. Cyclical patterns across the year can also be examined.

It also becomes possible to examine the interrelation between various forms of arts participation to answer the question of whether participation

Table 2.1: Core Arts Participation Questions

1. The following questions are about YOUR activities during the LAST 12 months — —between __________ 1, 19 ___, and __________ ___, 19 ___.

During the LAST 12 MONTHS, did YOU go to a live jazz performance?

0 ☐ No

Yes — How many times did you do this LAST MONTH— — between __________ 1, and __________ ___, 19 ___ ?

1 ☐ None
2 ☐ One
3 ☐ 2–3
4 ☐ 4–5
5 ☐ 6 or more

2. (During the LAST 12 MONTHS,) Did you go to a live classical music performance? This includes choral music and instrumental or vocal recitals, as well as symphony and chamber music.

0 ☐ No

Yes — How many times did you do this LAST MONTH ?

1 ☐ None
2 ☐ One
3 ☐ 2–3
4 ☐ 4–5
5 ☐ 6 or more

3. (During the LAST 12 MONTHS,) Did you go to a live opera?

0 ☐ No

Yes — How many times did you do this LAST MONTH ?

1 ☐ None
2 ☐ One
3 ☐ 2–3
4 ☐ 4–5
5 ☐ 6 or more

4. (During the LAST 12 MONTHS,) Did you go to a live musical stage play or an operetta? Do not include grade school or high school productions.

0 ☐ No

Yes — How many times did you do this LAST MONTH ?

1 ☐ None
2 ☐ One
3 ☐ 2–3
4 ☐ 4–5
5 ☐ 6 or more

5. (During the LAST 12 MONTHS,) Did you go to a live performance of a non-musical stage play? Do not include grade school or high school productions.

0 ☐ No

Yes — How many times did you do this LAST MONTH ?

1 ☐ None
2 ☐ One
3 ☐ 2–3
4 ☐ 4–5
5 ☐ 6 or more

6. (During the LAST 12 MONTHS,) Did you go to a live ballet performance?

0 ☐ No

Yes — How many times did you do this LAST MONTH ?

1 ☐ None
2 ☐ One
3 ☐ 2–3
4 ☐ 4–5
5 ☐ 6 or more

7. (During the LAST 12 MONTHS,) Did you visit an ART gallery or an ART museum?

0 ☐ No

Yes — How many times did you do this LAST MONTH ?

1 ☐ None
2 ☐ One
3 ☐ 2–3
4 ☐ 4–5
5 ☐ 6 or more

8a. (During the LAST 12 MONTHS,) Did you play a musical instrument in a public performance or rehearse for a public musical performance?

0 ☐ No – *Skip to 9a*
1 ☐ Yes

8b. Did you play any classical music?

0 ☐ No
1 ☐ Yes

8c. Did you play any jazz?

0 ☐ No
1 ☐ Yes

9a. (During the LAST 12 MONTHS,) Did you act, sing, or dance in a public performance or rehearse for a public performance?

0 ☐ No – *Skip to 10*
1 ☐ Yes

9b. Did you act in a non-musical role?

0 ☐ No
1 ☐ Yes

9c. Did you sing in a musical play or operetta?

0 ☐ No
1 ☐ Yes

9d. Did you sing in an opera?

0 ☐ No
1 ☐ Yes

9e. Did you dance in a ballet performance?

0 ☐ No
1 ☐ Yes

10. (During the LAST 12 MONTHS,) Did you read novels, short stories, poetry, or plays?

0 ☐ No
1 ☐ Yes

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in one form of arts activity appears to have an effect on participation in other forms. Is attending an opera performance related to attending classical music concerts or does the reverse hold true? Or are they unrelated? Multidimensional analyses of prior studies of arts participation (e.g., Reed and Marsden 1980; Peterson and Hughes 1982) have identified several patterns of arts participation. The SPA data make it possible to verify whether these earlier clusterings hold for a very large and representative national sample. The SPA patterns can also be used to better organize and to simplify subsequent multivariate analyses that attempt to identify the factors that determine arts participation.

Subsequent sections of this chapter deal in more detail with:

I) The sample design and procedures for the larger omnibus survey;
II) Measuring sampling error;
III) General data collection organization;
IV) Interviewing procedures for the larger omnibus survey;
V) Field procedures and data processing for the SPA;
VI) SPA questions and rationale;
VII) Coding and data entry;
VIII) Weighting procedures;
IX) Methods of statistical analysis;
X) Multiple Classification Analysis (MCA);
XI) Factor analysis;
XII) Index construction.

Table 2.2: Question Sequence in SPA'82

Category	Questions and Content	Asked in These Months
(1) Barriers to participation	13 reasons preventing participation (e.g., cost, distance, time).	January, July, November, December
(II) Socialization experiences	Lessons taken in music, visual arts, theatre, writing, crafts, art appreciation, music appreciation. Parental escort to music/opera, museums, dance, or encouragement of reading.	February, August, November, December
(III) Recreational lifestyle	Participation in any of 14 recreational sports (hobby, spectator, etc.) activities over the prior year.	March, September, November, December
(IV) Performance locations/ favorite music	Attendance at any of 11 types of arts facilities. Like to listen to 14 types of music.	April, October November, December
(V) Other arts-related participation	Attendance at art festivities, monuments, museums, experiences involving arts; take part in crafts, staging or artistic activities.	May, November, December
(VI) Mass media participation	Television, radio and recordings related to jazz, classical music, opera, musicals, plays, ballet, and art galleries.	June, November, December

1) SAMPLE DESIGN AND PROCEDURES

The larger Census Bureau project consists of interviews conducted each month at a sample of households selected by scientific sampling methods from 376 sample areas throughout the United States.

1. Sample Design

a. Sample areas, called Primary Sampling Units (PSU's), were established as follows:

- All of the counties in the United States were classified either singularly or in combinations with other counties. Those with similar characteristics such as growth, population, principal industry, and type of agriculture, were grouped together.
- From each group, one or more counties, or combinations of counties, was selected to represent that group. These representative counties (or combinations) are called PSU's.

b. Within each PSU:

- A sample of Census Enumeration Districts (ED's) was selected from the 1970 Decennial Census.
- The selected ED's were divided into small groups of addresses called segments.
- Each segment consists of a group of addresses which are assigned for interview.

c. There are five types of segments: area, address, special place, permit, and census supplementary (Cen-Sup). In all segments, the sample is of addresses, not persons or families.

d. The sample also includes housing units constructed since the most recent census.

- In places where building permits are issued for new construction (Permit Areas), a sample of building permits issued since the last Decennial Census is selected. These addresses are assigned as permit segments.
- In places where no building permits are required (Non-Permit Areas), newly constructed units are listed and interviewed in area segments.
  In Non-Permit Areas, only area segments are assigned.

e. Some sample units are located in special places, with special living arrangements, such as dormitories, institutions, convents, or mobile home parks. Units from the 1970 Census which were identified as belonging to a special place are designated as

special place segments.
Special places which were not identified as such in the 1970 Census may appear in area and address segments.

Further details on sampling procedures are given in Appendix A to this report.

2) MEASURING SAMPLING ERROR

1. Sample

Since survey estimates are based on a sample, they may differ somewhat from the figures that would have been obtained if a complete census had been taken using the same schedules, instructions, and enumerators. As in any survey work, the results are also subject to errors of response and of reporting, as well as being subject to sampling variability.

The estimates of standard error produced from the sample data are primarily a measure of sampling variability, that is, of the variations that occur by chance because a sample rather than the whole of the population is surveyed. The estimates of standard error also partially measure the effect of response and enumeration errors, but they do not measure, as such, any systematic biases in the data.

Each estimate made from the survey process has its own variance and resulting standard error. It is, however, impractical to compute an estimate of the variance for every sample estimate. Therefore, variances are estimated for a small subset of the sample estimates. These variances are then generalized to be applicable to all estimates from each of the various aggregate estimates (e.g., percentage attending jazz performances, percentage watching classical music performances on television, percentage liking rock music).

The total error of an estimate involves a component, in addition to the variability due to sampling, which is called non-sampling error. This component is called the bias of the estimate. The bias is the difference between the average of all possible samples (this average is conceptual since only one sample is used) and the attempted value to be estimated.

This is the result of:

a. The types of estimates being produced (e.g., ratio estimate). These are known to be biased but are preferable to certain other unbiased estimates, because of the amount of reduction they bring to the variance of the estimates.

b. Systematic errors in response. These can result from recall problems, interviewer effect, questionnaire wording, etc.

c. Processing errors. These can result from duplication or omission of units in the sampling frame, methods of adjusting for nonresponse, coding, classification, and edit errors, etc.

The amount of bias cannot be directly observed and estimated. It is known to exist, though, and during the survey process, efforts are made through design and control operations to limit its effect.

2. Variances and Sample Errors for the SPA

With respect to the sampling errors for the SPA portion of the sample, Table 2.3 shows first the theoretical sampling error for this size sample and then the actual observed variation for a variety of SPA questions. As shown in this table, for example, the proportion of respondents who said they attended a live jazz performance in the previous 12 months was 9.6% -- which is rounded to the nearest whole percentage (10.0%) in Chapter 3. Using the theoretical mathematical formula to compute sampling errors, one standard error for this size sample is:

$$\sqrt{\frac{.096(.904)}{17,254}} = .0022 \text{ or } .22\%$$

The population bounds for these questions for 95% confidence is obtained by roughly doubling this interval of .22%, or about .44%. This means that the 95% confidence interval falls .4% above and below the average estimate (i.e., between 9.6%-0.4% and 9.6%+0.4%, or between 9.2% and 10.0%).

Table 2.3: Sampling Error Calculations

At Least Once in the Last 12 Months	Estimated Participation Rate	Theoretical Sampling Error (n=17,254)	Theoretical Sampling Error (n=8,627)	Observed Sampling Error (n=8,627)	Design Effect
Attended:					
Jazz	.096	.0022	.0032	.0044	1.38
Classical Music	.130	.0026	.0037	.0055	1.48
Opera	.031	.0013	.0018	.0027	1.50
Musicals	.186	.0030	.0042	.0056	1.33
Plays	.119	.0025	.0035	.0042	1.20
Ballet	.041	.0015	.0021	.0026	1.23
Movies	.625	*	.0064	.0061	.95*
Visited:					
Art Museums	.221	.0032	.0045	.0079	1.75
Historic Sites	.369	**	.0074	.0109	1.47**
Arts/Crafts Fairs	.392	**	.0075	.0099	1.32**
Performed in Public:					
Played Classical Music	.0090	.0007	.0010	.0012	1.18
Played Jazz Music	.0088	.0007	.0010	.0012	1.18
Danced in Ballet Performance	.001	.0002	.0003	.0003	.95
Acted in Non-musical Role	.008	.0007	.0010	.0012	1.20
Sang in Musical Play or Opera	.009	.0007	.0010	.0012	1.19
Sang in Opera	.001	.0002	.0003	.0003	1.16
Read:					
Books and Magazines	.840	*	.0049	.0055	1.12*
Novels, Short Stories, Poetry or Plays	.560	.0038	.0054	.0072	1.34
Read or Listened to Poetry	.199	**	.0061	.0065	1.06**
					1.26 Average

* Actual sample size = 5571
** Actual sample size = 4255

But that is the theoretical proportion for a completely random sample, and SPA respondents were chosen by clustered random sample. As noted above in Section 1, that means that clusters or segments of households (about 4) in a neighborhood were chosen. Since people in neighborhoods may tend to share certain characteristics (such as going to jazz or classical music performances), that raises the possibility that the effective after-sample size is lower because of this clustering due to the homogeneity of people who live close to one another or in the same area.

Further clustering was introduced in the SPA by interviewing more than one member in a household, since persons who live together also share and determine each others' activities to a greater extent than do people who share space in the same neighborhood.

Methods for measuring the effect of this clustering (described as the design effect) are: (1) to treat the total sample as a series of random samples of half the size of the total sample; and (2) to observe how much larger the sampling variance for this half-sample is than the theoretical figure described here. In other words, the 17,254 respondents are randomly divided into half-samples of about 8,600 respondents each, and the variations in estimates for these half-samples are compared to the variation expected theoretically.

For the present study, 16 such half-samples were generated. In the case of jazz performances, the first half-sample of 8,600 chosen at random produced an estimate of 9.5% attendance of jazz performances, or 0.1% less than the overall average; (its complementary sample of 8,600 produced a figure of 9.7%; that was of course equivalently 0.1% above the overall average for the total of 17,254). The second half-sample produced an estimate of 10.5%, the third 9.1%, the fourth 9.4% and the remaining 12 half-samples produced figures of 9.9, 9.3, 9.4, 9.0, 9.2, 9.7, 9.9, 9.4, 9.6, 9.6, 10.2 and 10.1. These 12 estimates are clearly rather close to the overall observed average of 9.6%. But are they as close as the theoretical sampling formulas for this size sample would predict?

That is estimated from the sum of each of the half samples. There the deviation from the overall average for the first half sample is 0.1%, as noted above, 0.9% for the second, 0.5% for the third, 0.2% for the fourth and then 0.3, 0.3, 0.2, 0.6, 0.4, 0.1, 0.3, 0.2, 0, 0, 0.6 and 0.5. The average deviation for these 16 figures is about .5%; the standard deviation from the statistical formulas is closer to 0.4%.— 0.0044 to be exact. In contrast, the theoretical figure for a completely random sample of size 8,627 is:

$$\sqrt{\frac{.096(.904)}{8627}} = .0032$$

which is about three-quarters as large as the .0044 figure that is observed.

Therefore, we estimate that the overall design effect due to sample clustering is the ratio of .0044/.0032, or 1.35. This means that the sample is 35% less efficient than an unclustered random sample and that the effective sample is only three-quarters as large as the number of people actually interviewed. The design effects shown for other questions in Table 2.3 also indicate a sample effectiveness ratio of about the same magnitude.

3) GENERAL DATA COLLECTION ORGANIZATION

1. Regional Offices

There are 12 permanent Census Regional Offices whose combined territory includes all 50 states and the District of Columbia. Each Regional Office is staffed with one supervisor and one clerk who works on the project on a full-time basis. The field staff consists of about 60 senior interviewers who assist the supervisors in conducting observation and reinterviews, and about 500 interviewers. For purposes of operating the offices and training the field personnel, there are several manuals, training guides and control forms in use.

2. Interviewer Selection and Training

Potential interviewers are recruited and given a written standard aptitude test of 35 questions. Twenty-three or more correct responses is an acceptable score. Interviewers then complete the initial self-study package on the larger survey and attend a two-day classroom training session conducted by supervisors. Subsequent to classroom training, each interviewer is observed during the first one or two days of actual interviewing. Each new interviewer is again observed for one day during the second month of interviewing. Observations are conducted either by a supervisor or a senior interviewer. In addition to the basic training, all supervisors and interviewers receive regular monthly instructions to reinforce previously learned concepts and techniques or to present new material.

3. Enumeration and Checks

Each interviewer is assigned about 30 households to interview in various segments as close as possible to his/her residence. Enumeration is completed within the first two weeks of every month. The quality of interviewing is maintained through (1) direct observation of all interviewers at least once a year; (2) office editing of completed work to ensure that instructions have been followed, entries are consistent and required items are filled; (3) verification of interviewing by reinterview. Five percent per month of all households are assigned for reinterview. Reinterviewing helps to evaluate the impact of errors on variations in response. It also measures errors in coverage of the sample arising from incorrect listing, and detects failure to conduct interviews at the correct address, noninterview misclassifications, and missed units or incorrect application of definitions of housing units and household members.

4. Preparation for Interviewing

Each month interviewers receive Control Cards for each sample unit in their assigned area from their regional office. Those with only the heading filled in show that the sample unit is to be interviewed for the first time. This card is the basic record for each sample unit. The front part contains the address of the unit and basic household data such as the names, ages, race, education, and other demographics of every person living in the household if the household has been contacted before.

The interviewers also receive a supply of basic "Screen Questionnaires" which contain identification items, personal characteristics, household screen items and individual screen items. In addition, the interviewers are given an Information Card Booklet to be used in completing the interview.

Further details on general data collection, organization, and procedures are given in Appendix A.

4) INTERVIEWING PROCEDURES FOR THE LARGER OMNIBUS SURVEY

As explained above, the Survey of Public Participation in the Arts was a supplement to the omnibus national survey which was conducted first. This section describes the procedures for conducting this omnibus survey, and the following section describes the procedures for the specific questions.

1. "Dear Friend" Letter

Before the scheduled field interviews, a "Dear Friend" letter informing each household about the survey is sent to the sample household before the first enumeration. A differently worded "Dear Friend" letter is sent before each subsequent enumeration. The introductory letter informs the household of the interviewer's impending visit and provides information required by the Privacy Act of 1974.

2. Interview Method

The first step in the interview itself is the introduction, in which the interviewer introduces himself or herself, states that the U.S. Bureau of the Census is conducting the survey, and shows the respondent an identification card. An explanation of the nature of the survey is given, and it is verified that the respondent has received the introductory letter which provides information required by the Privacy Act.

If the respondent requires more information, the interviewer explains why the particular respondent was chosen and provides an explanation of the survey's confidentiality: that all information about individuals is held strictly confidential by law; that the name and other information that would permit personal identification of the respondent is not available to persons other than those involved in the survey; and that the information from all respondents is combined to obtain statistical totals for publication.

If possible, each respondent is interviewed privately to keep unauthorized persons from listening to an interview. Special arrangements can be made if an interpreter is needed. Each question is asked exactly as instructed, in the same order and with the same wording. The interviewers follow the standard procedures for good interviewing and then record the answers on the survey form. If any of the household members 14 years old or older are not present at the time of the initial interview, callbacks to interview the remaining members are made by telephone for the general survey. For the SPA, this was the case for all household members 18 or older.

The initial contact with the household is a personal visit, in which interviews are to be obtained for as many household members 12 years or older as possible. Subsequent to the initial personal interviews, however, in order to save time and money, the interviewers are allowed to make telephone callbacks to obtain interviews with the remaining eligible household members. The following criteria are used to decide whether or not to telephone:

a. The size of the assignment, since a telephone interview is quicker than a visit in terms of travel time to the sample unit.

b. The distance of the sample household from the interviewer's home.

c. Whether it would be cheaper to telephone or visit the household.

d. A respondent's preference for either the telephone interview or the personal interview.

3. Persons Interviewed

a. Household Respondent:
Questions pertaining to the entire household-including information about household composition- are asked only once. Almost any adult is technically eligible to answer household questions. Such questions include the Control Card items and Household Screen Questions. The interviewer is instructed to interview the most knowledgeable household member; that is, the one who appears to know--or who could reasonably be expected to know--the answers to the household questions. Most frequently, this is the head of the household or the spouse. If it becomes apparent that the particular household member being interviewed for the household information is unable to answer the questions, a more knowledgeable respondent is found, or arrangements are made to call back when a knowledgeable respondent is available.

b. Self Respondent:
Questions on the basic questionnaire pertaining to individuals are asked as many times as there are household members 12 years of age or older. Information about each household member 14 years and over is obtained by self-response; that is, each of these persons provides information about himself.

c. Proxy Respondents:
Information about each household member aged 12 and 13 is obtained by a proxy; that is, the general survey questions for these persons are asked of the household respondent or some other knowledgeable household member.

Proxy interviews are also taken if a particular respondent is physically or mentally unable to answer the individual questions or if a household member 14 or older is temporarily absent and is not expected to return before the enumeration closeout date.

4. Noninterviews

Occasionally, an interview for a sample unit is not obtained and the unit is classified as a noninterview. Reasons for noninterviews include the following:

a. The unit is not occupied.
b. The unit is occupied only by persons not eligible for interview.
c. The unit is occupied by eligible persons, but an interview is not obtained.
d. The unit had been demolished or is no longer used as living quarters.

Household noninterviews are classified into three groups--Types A, B, and C.

a. The Type A noninterviews consist of households occupied by persons eligible for interview, but from whom no interviews are obtained. These noninterviews arise under the following circumstances:

- No one is found at home in spite of repeated visits.
- The entire household is temporarily away during the entire interview period.
- The household refuses to give any information.
- The unit, although occupied, cannot be reached because of impassable roads.
- An interview is not conducted with any household member because of serious illness or death in the family.
- The interviewer is unable to locate the sample unit.

Under most circumstances, Type A noninterviews are considered avoidable noninterviews, and every effort is made to convert them to interviews. Interviewers are trained to explain fully the purposes of the survey to reluctant respondents. If no one is at home, the interviewer leaves a note attempting to have the respondent contact him/her, or calls back at various hours in attempts to find someone in the household at home.

It is considered important to keep Type A noninterviews to a minimum in order to avoid losing information from these households and to maintain a sample representative of the population.

b. The Type B noninterviews result from units which are either unoccupied or which are occupied solely by persons not eligible to be interviewed. These noninterviews arise under the following circumstances:

- The unit is a vacant regular housing unit.
- The unit is vacant and used for storage of household

furniture.
- The unit is temporarily occupied by persons who usually reside elsewhere.
- The unit is unfit for habitation or is to be demolished.
- The unit is under construction, but is not ready to be occupied.
- The unit has been temporarily converted to business or storage.
- The sample address identifies an unoccupied tent or trailer site.
- A building permit has been granted, but construction has not started.

c. Type C noninterviews result from ineligible units for sample.

Reasons for Type C noninterviews are:

- An unused line of the listing sheet; i.e., no address was listed on a line previously designated for the general sample.
- The unit has been demolished by the time of enumeration.
- The house or trailer has moved.
- The unit has been converted to permanent business or is used for storage.
- The unit has merged with another unit.

When a unit is classified as a noninterview, only a few items are filled on the Control Card and a Noninterview Record is filled out.

Occasionally, the interviewer is unable to obtain an interview for a particular household member in an otherwise interviewed household. This person is classified as a Type Z noninterview. For a Type Z noninterview, only a few personal characteristics items are filled on the control card.

The noninterview rates in certain categories for the 12 months of the Survey of Public Participation in the Arts are shown in Table 2.4.

Table 2.4: Non-Interview Rates in Twelve Months of SPA'82

	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Type A* (households)	5.0%	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Noninterview Rate (preliminary person)	6.3%	8.7	7.4	6.3	6.5	8.3	12.0	9.2	13.0	6.3	13.2	11.7
Noninterviews												
Type Z**	37	47	61	34	35	27	46	44	26	37	47	47
Proxy***	32	45	32	36	35	43	71	52	17	28	39	30
Refusal SPA	22	47	36	24	34	46	53	48	53	36	96	90
Other****	0	11	5	5	7	10	28	4	101	5	14	20
Total	91	150	134	99	111	126	198	148	197	106	196	187
Completed SPA Interviews	1435	1572	1803	1475	1593	1385	1405	1460	1315	1570	1283	1408*****
Total SPA Cases	1526	1722	1937	1574	1704	1511	1603	1608	1512	1676	1479	1595

* NCS Type A- An occupied sample unit for which no data were obtained because no one was home, the occupants were temporarily away during the entire interview period, the household refused to be interviewed, or another reason such as impassable roads, unable to locate, illness or death in the family.

** NCS Type Z- A household member is a person-noninterview in an otherwise interviewed household. (If all persons in a household are not interviewed, the household is a Type A noninterview.)

*** NCS Proxy- NCS interview for an individual obtained by proxy (from household respondent or another knowledgeable household member) because individual was mentally or physically unable to respond or because individual was temporarily absent during the interview period.

**** Includes Type A Households.

***** Total adds to more than 17,254 because it includes certain interviews later determined to contain missing information.

In general Table 2.4 shows that Type A noninterviews (unoccupied units, general study referrals, etc.) were fairly evenly scattered across the 12 months and represent a loss of about 5% of all eligible housing units. Other types of non-interviews averaged about 10% for the entire survey and varied more widely by month--from just over 6% in January, April, May and October to over 11% in July, September, November and December.

The higher noninterview rates in September occurred due to difficulties in locating respondents who were chosen using a different sampling procedure than the one used for other months. September respondents were originally in the exit rotation for August, but were not administered the SPA until the following month. Their sixth interview consisted of the omnibus survey only. Those respondents were then contacted again to complete the SPA, in September. Because the SPA was their seventh interview, it was more difficult to obtain their cooperation than was true for respondents in other months even though the interview was shorter.

The reasons for the high noninterview rate for July are less clear, although this was a vacation month, people were away from home and there was an unusually large number of proxy interviews that month.

5. General Interviewing Sequence

The general interview sequence for omnibus survey is: (1) complete a Control Card on the unit; (2) ask all appropriate personal characteristics and screen questions (including Household Screen Questions) on the Basic Screen Questionnaire of the household respondent; (3) provide detailed reports on certain behavioral incidents mentioned by the household respondent in the Basic Screen Questionnaire; and (4) ask all appropriate personal characteristics and screen questions and complete Incident Reports, if any, for each subsequent eligible household member. An entire general survey interview was completed for each household member before proceeding to the next person. Thus, none of the SPA questions were asked during the general survey interviews to ensure that SPA would not impact on the omnibus survey questions. Instead selected survey respondents were asked the SPA questions following the general questions. The SPA selection procedures and questions, which were designated to take about 20 minutes of interviewing time, are described in the next section.

5) FIELD PROCEDURES AND DATA PROCESSING FOR THE SPA

Once each respondent aged 18 and over had completed the general survey questions, they were read an introductory statement about the purpose of the SPA, its sponsoring agency, and its voluntary confidential nature. The statement also attempted to establish that the survey pertained to the respondent's situation only and not to that of any other members of the household (as was the case for some of the general survey interview questions). The introductory statement for both personal and telephone interviews was as follows:

INTRODUCTION

> We have some questions about your leisure activities. The Bureau of the Census is collecting this information for the National Endowment for the Arts. (Hand respondent the Privacy Act Statement LAS-13. If PHONE INTERVIEW, END INTRODUCTION.) This explains the legal authority for conducting this survey. It also explains that the survey is voluntary and information provided will be used for statistical purposes only. Your cooperation is extremely important to help ensure the completeness and accuracy of this needed information.

Editing

After the field staff has completed data collection and enumeration checks, the questionnaires are sent to the main office for preparation of the data for computer processing. The clerical processing of the survey data consists of two major operations, the clerical edit and the keying of the data to magnetic tape. The main purpose of the clerical edit is to locate and correct any interviewer errors and, when possible, correct areas of respondent misunderstanding in an effort to improve the accuracy and quality of the data. A statistical quality control plan is employed in order to ensure an acceptable level of quality of the editing and coding operation. Initially, each clerk's work is verified until it is shown that the clerk is capable of performing acceptable work. After that, a random sample of the documents in each work unit is verified to ensure that the quality of the work does not deteriorate.

Data Keying

The data are keyed on a key-to-disk device. For quality control purposes, work units of approximately one hundred questionnaires each are keyed. A statistical quality control plan is employed in order to ensure an acceptable level of quality of keying. Each keyer's work is completely verified.

Computer Processing

Upon completion of keying and verification, the data for each work unit are ready for computer processing. With the receipt of the tape file of keyed questionnaires, computer processing is initiated. This processing is divided into four stages. The first is a pre-edit or correction stage in which significant interviewer and clerical errors are detected and corrected. The secondary edit stage checks the data for plausibility and conformity to questionnaire skip patterns. The third stage of table preparation includes all weighting and recoding necessary to produce the final tabulations. The fourth and final stage is the tabulation stage in which the final tables are produced.

6) SPA QUESTIONS AND RATIONALE

The Survey of Public Participation in the Arts (SPA) consists of several series of questions dealing with various aspects of arts participation. These include: the common set of 10 core activity items (shown in Table 2.1) and a rotated series of six different questions dealing with:

1. Participation in 36 other specific leisure activities;
2. Use of mass media for arts participation;
3. Socialization experiences and lessons/classes taken in arts-related activities;
4. Interest in increased levels of participation and perceived "barriers" that prevent fuller participation;
5. Liking of 13 types of music and favorite type of music;
6. Detailed information on the types of places at which the arts participation measured in core questions took place.

The SPA underwent several rounds of pretesting prior to the January 1982 survey.

First, questions had to be developed and refined concerning several new topic areas. There were complicated issues surrounding the phrasing, format and sequence of core activity questions: what time frame to employ (yearly, biannually, monthly, weekly); how to define activities and separate them from each other; how to handle amateur and school productions, etc.

Recommendations from a series of pilot tests conducted by Census Bureau field staff resulted in a draft questionnaire in 1980. These recommendations were then operationalized according to Census Bureau formats and procedures. It was determined from these pilot tests, for example, that the term "modern dance" had little clear meaning to respondents and was apt to lead to much confusion in interpretation.

The SPA was fully pretested in the summer of 1980 with a sample of approximately 200 respondents selected to eliminate the need for callbacks (to addresses where the occupants were not at home, were temporarily absent, or refused to participate). The addresses came from test census tracts for District Heights, Maryland, and for Alexandria and Arlington, Virginia, which were not used in other Census Bureau surveys. To save time and travel costs, all available household members 18 years and older were interviewed during the pretest.

Interviewing teams (of one observer and one interviewer) consisted of Census Bureau interviewers and staff from the Bureau and the sponsoring agencies. Approximately five teams were used, each team receiving approximately 30 addresses. Observation forms were completed for each SPA interview and upon completion of the pretest interviewing, both observers and interviewers were debriefed in a group session. The questionnaires and observation forms were reviewed to detect problems with the interviewer instructions or with the questionnaire. As a result of these pretests, certain modifications were undertaken.

The final pretest interview questionnaire was, in fact, almost identical to the 20 minute questionnaire used in the November and December 1982 surveys. As the survey was about to begin, however, funding constraints resulted in the need for revised field procedures. Funds were only available for five minutes instead of 20 minutes of interviewing per month. Therefore, the questionnaires for each of the first 10 months (January-October, 1982) were subdivided into two parts: (1) two minutes of core questions and (2) approximately three minutes of rotating questions from the remaining 18 minutes of questions in the original questionnaire.

Thus, the SPA first provided measures of participation in and attendance at the arts activities measured in core questions (e.g., jazz, opera). Then, depending on the month of the survey, it examined: participation in other leisure activities; use of mass media for arts-related activities; socialization experiences; barriers to participation; music preferences; or the types of locations at which the arts attendance took place.

The core participation questions first asked about participation in the previous year, and if this response was positive, then questions were asked about participation in the previous month, and the number of occasions of participation in that month.

Listed below are the more specific data objectives for the various groups of non-core, or rotating, questions administered in the SPA.

1. Life-Style:

These data were intended to put the participation/attendance items in clearer behavioral perspective. To what extent was attendance at arts events more or less prevalent than for other leisure activities, such as sports or hobbies? To what extent do types of activities compete with or supplement each other? What "life-style" patterns were evident in these data and how did these relate to arts participation? The items themselves introduced a wide variety of leisure behaviors that encompassed both indoor and outdoor activities, those done at home rather than away from home, those with minimal artistic connection and those having some connection (e.g., crafts, poetry, music lessons); thus these latter items represented an expanded list of art-related activities.

2. Mass Media:

These data also extend the arts exposure of the American public to include not only those arts events experienced "live," but also those seen/heard on television, radio and recordings. These data provide insight into several questions: Is more of the public reached by arts through the media or through live events? Do the media reach larger audiences for certain art forms but not others? Are arts performances via certain media likely to stimulate or compete with attendance at live performances? Regarding television in general, are the heavy viewers of this most time-consuming medium more or less likely to attend arts performances?

3. Barriers to Participation:

This was the most ambitious set of questions in the survey and yet the most important for identifying the potential or the "untapped" audiences for the arts. It first asked respondents whether they had attended each of the seven types of arts events as often as they would have liked in the past year. This was asked of both those who had attended in the past year and those who had not. Those respondents who said that they would like to attend more events were then asked about their reasons for not attending more. Their open-ended responses were coded by interviewers into 15 categories. These categories included both "external" reasons (i.e., cost of tickets too high, tickets sold out, transportation or parking problems) and "internal" reasons (i.e., lack of interest, preference for television, or feeling too uncomfortable to attend).

These questions provide not only an examination of what arts performances Americans do attend, but of what they would like to attend if certain internal or external barriers were removed. Might there be a larger audience for events that presently draw small audiences or for those already drawing large audiences? Is there more desire to increase attendance among those who already attend arts performances or among those who presently do not attend? Are those who want to attend more events concentrated in certain demographic segments of the population?

Using these data, it is possible to treat the total U.S. population as being subdivided into four segments:

a) Those who presently attend arts performances and want to attend more;

b) Those who presently attend arts performances but do not want to attend more;

c) Those who do not presently attend performances yet want to attend, but cannot for various (internal and external) reasons; and

d) Those who do not presently attend and also do not want to attend.

These questions also make it possible to see whether attendees and non-attendees who want to attend more (segments a and c) differ in the barriers which they perceive as preventing participation. Are those who do not attend, for example, more likely to say arts performances are not available to them?

4. Socialization into the Arts:

Many Americans receive first-hand exposure to the arts either through taking lessons and classes (e.g., in musical training or music appreciation) or by their parents having taken them to arts performances. Such data allow one to examine how many American adults have ever been exposed to these socialization experiences, and whether these experiences are related to current arts participation. Is it the case, for example, that the current audiences at arts performances are largely confined to those people whose parents took them to arts performances or to those who took formal lessons in some art form? Are younger adults more likely to have received this type of exposure than older adults; and does this prior exposure have any relation to different attendance patterns that occur among different age groups?

These socialization questions provide information on classes or lessons for six types of arts and crafts and for both art appreciation and music appreciation. These questions also asked about how often respondents remembered their parents having taken them to arts performances and how much parental encouragement they received for independent reading. Respondents also were asked about their parents' level of formal education in order to examine whether parental education per se may have had an indirect effect on current arts participation. These questions have obvious relevance to questions now being raised about how to enhance arts education efforts in public and private schools.

5. Music Preferences:

In order to determine more closely the full extent of public interest in certain forms of music (e.g., jazz, opera, musical theatre and classical music), respondents were asked whether they liked to listen to these types of music. In order to put these responses in clearer perspective, respondents were also asked whether they liked to listen to several other types of music (e.g., rock, country-western, and easy listening). In order to gauge the intensity of these preferences, respondents were also asked which of these types of music they liked best.

Such questions allow one to observe the extent of overlap between preferences for various forms of music. Are people who like classical music or jazz more or less likely to enjoy country music or rock music? Are there clusterings of different music fans or musical styles, such that people are more likely to "migrate" from one style to another? How do these clusters differ from one demographic segment to another? What proportion of those who say they like a type of music also claim it to be their favorite type of music?

Moving to a slightly different set of questions, how do music preferences relate to attendance at performances of that type of music? What proportion of those who attend jazz or opera performances say that they actually do not like such music? Conversely, of those who like a type of music, how many manage to attend a performance? In other words, how much can be inferred about the numbers of those who actually "like" a form of music from the numbers of those who attend live performances of that music?

6. Location of Arts Performances:

Arts performances take place in several different types of locations. People may attend in private facilities (theatres, nightclubs, etc.) or public facilities (schools, parks, etc.), in religious facilities (churches, YMCA's, etc.) or in arts facilities (concert halls, opera houses, etc.). Therefore, those respondents who had attended any arts performances in the previous year were asked in what types of facilities they had seen these performances. Ten types of facilities were categorized into which the interviewer could code responses to these questions. Responses provide some perspective on the extent to which types of artistic performances take place in private, public, religious, cultural, or other types of facilities. It is also possible to examine those responses for differences in type of facility by the types of arts performances attended, by the different demographic/geographic segments of the population, and so forth.

To summarize certain applications of the data from the six sets of rotating items in the SPA, they are each noted in Table 2.5, according to their applicability to seven different issues or questions that can be addressed.

The various X marks in Table 2.5 are intended to highlight the major issues and questions that can be addressed with each set of questions in the SPA. Two X's indicate that those survey questions are more directly related to a given issue or question. A single X indicates that those questions are indirectly related to an issue or question. The relationships among rotating survey questions and the issues and questions addressed by the SPA are detailed below.

Table 2.5: General Issues and Questions Addressed by the Non-Core Rotating Items in SPA'82

	Life-Style	Media	Barriers	Socialization	Music	Location
1. Determine exposure beyond live performances last year	XX	XX		XX		
2. Infer meaning/relevance of attending performances	X	X	XX	X	XX	XX
3. Compare to other audiences and activities	XX	X			XX	
4. Identify potential markets	X	X	XX	X	X	
5. Indicate factors that may determine attendance	XX	XX	XX	XX	XX	X
6. Relate to short-run arts policy questions	XX	XX	XX	XX	X	XX
7. Relate to long-run arts policy questions	X	XX	XX	XX	X	XX

1. Determine Exposure to Arts Beyond Attendance of Live Performances:

What is the number of people (or percent of the population) who watched an arts performance on television, or who attended a poetry reading, or did creative writing or whose parents ever took them to an arts performance? These are the issues mainly addressed by the media, life-style and socialization questions, as is indicated by the double checks in the first row of Table 2.5 for these question areas.

2. Infer the Meaning or Relevance of Attending Performances:

These are the survey questions that provide insights into attendance at arts performances themselves, such as the location at which it took place or the potential audience that might have been reached. The barrier questions also provide information on the reasons people who did not attend gave for non-attendance. Thus, the major questions that perform this function are the location, music and barrier questions. The life-style, media and socialization questions also give indirect information on the meaning of alternative data by comparing these levels to other levels of activities or to levels in other time periods.

3. Compare Arts Audiences to Non-Arts Audiences and Activities:

Here one can contrast arts audiences with other audiences, or contrast the number of participants at arts performances with the number of participants in other leisure activites. One can compare not only the size of these audiences, but their demographic composition as well. The major questions that serve this function are those dealing with life-style and music preferences, which allow researchers to compare the audience for jazz with the audience for rock music, or with the population of movie-goers. The media questions also permit such analysis indirectly by comparing all TV viewers with those viewers who use television for arts content.

4. Identify Potential Markets:

In order to increase the audience reach for the arts, certain aspects of the potential arts audiences need to be identified. The questions that most directly permit such analysis are the barrier questions, which identify reasons why people do not attend more arts performances. The media and life-style questions indirectly perform this function by identifying segments of the audience that are reached by media programs or that are engaged in other types of relevant activities. The socialization and music questions perform the function less directly by providing links to other experiential, attitudinal or psychographic characteristics of the various arts audiences.

5. Indicate Factors That May Determine Attendance:

What factors determine whether a person will attend an arts performance or not? Almost all of the rotating questions on the SPA can be used to address this question. The life-style factors can indicate whether engaging in certain leisure activities stimulates or inhibits attendance at some types of arts performances more than at others. The media questions indicate whether people who watch an arts-related program on television are more or less likely to attend. The question of perceived barriers provides first-hand responses on why people do not attend more arts performances. The socialization responses can address the issues of whether those who have taken lessons or those whose parents provided contact or encouragement with the arts are more likely to attend. The music responses indicate how much preference for a type of music predicts attendance at a performance of that type of music. The location data address the issue more indirectly, showing how often different performance settings are used to draw audiences to different arts activities.

6. Relate to Short-Run Arts Policy Questions:

At the present time there are several specific policy questions being raised about government policy toward the arts. The question of how extensive or valuable various forms of arts education or instruction are is addressed by the socialization responses. The questions of whether touring programs are reaching people in areas with fewer live arts events or in less accessible parts of the country are addressed by the barriers and location questions. Insights into how adequately potential audiences for the arts are being reached can be drawn from the music preference and life-style questions. The music questions are also directly relevant to specific program interests within the National Endowment for the Arts, as are specific aspects of media, barriers and socialization questions to programs in theatre and dance.

7. Relate to Long-Run Arts Policy Questions:

The responses on location can be used for examining whether there is an adequate distribution of facilities that are available for arts performances, and for providing guidance in achieving an optimal mix of public and private facilities. The socialization questions can be used to guide decisions about whether present forms of private and public instruction can reach an adequate segment of the public, or whether to encourage parents to provide arts instruction or support for their children. The barriers and media questions provide insight into whether the public is being adequately served or whether the public's arts needs may be met or more efficiently supplemented, by supporting arts programs via mass media rather than by directly supporting performing groups. Less directly, the music preference and life-style questions put the issues of the proper ratio of arts to non-arts activity into clearer perspective.

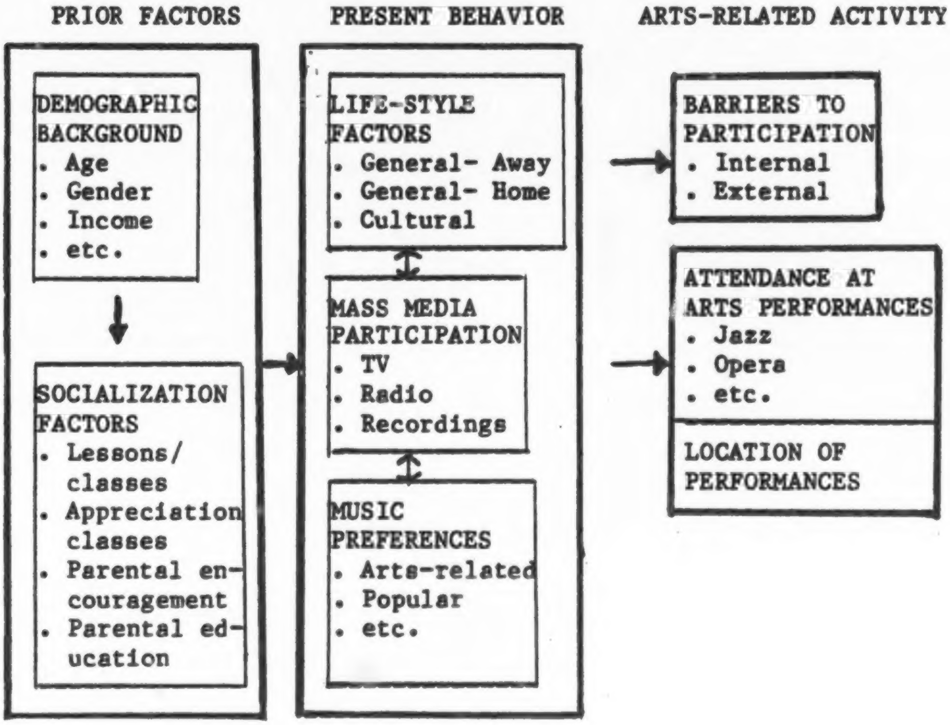
These represent only a few of the possible questions that can be answered with the SPA, and uses to which the data can be put. The relation of the rotating items to demographic factors and to the core attendance questions has been briefly dealt with. Yet there are many interesting relations that need to be explored among the rotating items themselves. For example, how do socialization patterns relate to music preferences, or to reliance on the media for artistic activities, or to leisure life-style patterns? Do people who are more active in away-from-home activities perceive different barriers to attending arts performances than those people who are less active or spend more time at home or who watch more or less television? Do people who perceive more barriers to arts performances participate in alternative forms of leisure activities?

Thus, the possible list of interrelations is almost limitless. Since the preliminary data have become available, they have been explored to answer several types of policy and theoretical questions. In this report, it is not feasible to examine all possible interconnections. Instead, the analysis has been confined within the limits of the general analysis model outlined in Figure 2.1.

Figure 2.1 first divides the variables--survey questions--into three broad categories. First are those factors that temporarily precede the time period of core attendance, namely the respondent's background (age, sex, etc.) and socialization experiences. The second set of variables can be conceived of as those that provide intervening experiences between the background variables and arts attendance--such as mass media exposure to arts content, leisure life-style patterns, and music preferences. Finally, there are the arts attendance questions themselves, together with the barriers questions that suggest why people do not attend and the location questions that indicate what types of facilities are used for arts performances. The solid arrows indicate the processes examined most closely and the dotted arrows indicate the interrelations examined only occasionally.

It is expected that other researchers will be exploring other models and issues in the near future when the data tapes and manuals are available for secondary analysis, and they will examine those models and processes in closer detail. Like the similar study of recreational participation that the Census Bureau conducted for the National Park Service in 1982 and 1983, data tapes and manuals will be available through the major university archival center in the United States -- namely the Roper Center at the University of Connecticut and the Institute for Social Research's ICPSR at the University of Michigan.

Figure 2.1: Multivariate Model Showing Major Interrelations Among Variables Investigated in the Report


PRIOR FACTORS
PRESENT BEHAVIOR
ARTS-RELATED ACTIVITY
DEMOGRAPHIC BACKGROUND
. Age
. Gender
. Income
. etc.
SOCIALIZATION FACTORS
. Lessons/ classes
. Appreciation classes
. Parental encouragement
. Parental education
LIFE-STYLE FACTORS
. General- Away
. General- Home
. Cultural
MASS MEDIA PARTICIPATION
. TV
. Radio
. Recordings
MUSIC PREFERENCES
. Arts-related
. Popular
. etc.
BARRIERS TO PARTICIPATION
. Internal
. External
ATTENDANCE AT ARTS PERFORMANCES
. Jazz
. Opera
. etc.
LOCATION OF PERFORMANCES

Additionally, it should be noted that a major factor limiting analysis of these sets of rotating items was the very fact that they were not asked of all respondents. In fact, the full model can only be examined for the nearly 2700 interviews conducted in the November and December surveys, which were 20 minutes in length. Otherwise, the schedule of rotation questions (as shown in Table 2.2) limits the degree to which the above questions can be addressed, or the model applied.

Thus, the seven general topic areas in the SPA varied considerably in terms of purpose, segments of the population of interest, and policy considerations addressed. A very detailed set of interview instructions was prepared and sent to interviewers to read prior to conducting their first interview.

In order to ensure that interviewers understood the purpose and intention of each set of questions, an interviewer quiz was prepared for the January 1982 survey.

7) CODING AND DATA ENTRY

After the interviewing and field staff had finished the data collection, the questionnaires were sent to the Census Bureau's main office for clerical checks and to prepare the data for computer processing. The clerical processing of the large survey and SPA data consists of two major operations: the clerical edit and the keying of the data to magnetic tape.

The main purpose of the clerical edit is to locate and correct any interviewer errors and, when possible, correct areas of respondent misunderstanding or inconsistencies in order to improve the accuracy and quality of the data. A statistical quality control plan was employed in order to ensure an acceptable level of quality of the editing and coding operation. Initially, each clerk's work is completed and verified until it is shown that the clerk is capable of performing acceptable work. Subsequently, a random sample of the documents in each work unit is verified to ensure that the quality of the work does not deteriorate. Keying was verified 100%, with the entire workload rekeyed by another keyer, compared to the original with all keying errors corrected.

With a few exceptions, the questions on the Survey of Public Participation in the Arts were closed-ended questions of the "yes-no" type. Some open-ended follow-up questions were asked (e.g., on reasons for not attending certain types of performances), but responses to these questions were immediately coded by the interviewer; those few responses (less than 500 total) that did not fit into these categories were subsequently coded into existing or new categories at the Census Bureau by Survey Research Center (University of Maryland) coders.

Once these supplemental codings were completed, all forms were sent to the Census Bureau for keypunching and verification. They were then transferred to computer tape with appropriate weighting (see Section V below) and demographic background information for each respondent; the tape was then sent to the University of Maryland for initial tabulations and analyses.

One piece of information not on the University of Maryland tape was the geographic region in which the respondent lived. The reason for this omission was that inclusion of such data could make it possible to provide information on specific respondents in the survey -- a situation which violated the strict rules on respondent confidentiality which the Census Bureau is required to follow as a government data collection agency. Therefore special computer runs had to be conducted at the Census Bureau for variations in responses by geographical factors. Weightings were for age, gender and race categories to ensure each of these groups were represented in their true population proportions.

1. Coding Open-Ended Responses

After the 1982 interviewing was completed and the questionnaires were sent from the field service to the Census Bureau in Suitland, Maryland, personnel from the University of Maryland were sworn in as special employees of the Census Bureau to examine the questionnaires and listed open-ended responses in the questions dealing with music preferences, participation barriers, and locations of arts performances. While a few new categories were formed from these open-ended responses (e.g., music of particular ethnic groups), most could be fit into the existing categories. For example, in the music preference question Dixieland music or "fusion" was coded as jazz (category 4). In the barrier questions lack of interest in an art form was coded as lack of motivation (code 14), and lack of money as cost (code 2). In the locations questions, listening to music at a music camp was coded as park or open-air facility (code 10).

The University of Maryland coders also made decisions about ambiguous responses or situations encountered by interviewers in the closed-ended questions (for example, when respondents said they had attended a high school play that included some professional performers, or when they heard a popular musical group that played some classical music or some jazz).

After the twelve months of interviews were coded and rechecked for accuracy, the questionnaires were sent to the Census Bureau's data processing facility in Jeffersonville, Indiana, in the early months of 1983.

2. Data Keying

The coded data were keyed on a key-to-disk device. For control and quality control purposes, work units of approximately one hundred questionnaires each were keyed. A statistical quality control plan was employed in order to ensure an acceptable level of quality of keying. Initially, each keyer's work was verified completely until it was shown that the keyer was capable of performing acceptable work. All keyed responses were 100% verified.

3. Computer Processing

Upon completion of keying and verification, the data for each work unit were ready to be put on tape for computer processing. With the receipt of the tape file of keyed questionnaires, computer processing was initiated. This processing was divided into four stages:

1) A pre-edit or correction stage in which significant interviewer and clerical errors were detected and corrected;

2) A secondary edit stage, which checked the data for plausibility and conformity to questionnaire skip patterns;

3) Weighting tape preparation, to show all weighting and recording necessary to produce the final tabulations;

4) Creation of the final tapes.

Once the SPA data were keyed, they were merged with the relevant household data from the larger survey on the demographic factors, except geography, and that tape was sent to the Survey Research Center at the University of Maryland in College Park. Personnel at the Center then:

1) Unblocked the tape to match UNIVAC machine language; and

2) Created an SPSS program to:

   - match the format of the data to SPSS format,
   - write descriptive titles for each variable,
   - designate missing values for each variable, and
   - transform the program into systems files.

Since more than 500 variables were involved, the file had to be divided (archived) to enable the University's SPSS system to process it.

8) WEIGHTING PROCEDURES

The data for each month of the Survey of Public Participation in the Arts have been weighted to reflect the civilian-noninstitutionalized population 18 years old or older. Use of the weights is important because weighted data provide more accurate estimates than the unweighted counts of the population sampled, especially when the modest sample sizes of the SPA are considered.

There is a large variation in the lowest and the highest weights assigned to the sample cases. For example, the September SPA weights for individual respondents range from representing approximately 5,500 people to 724,300 people. As shown by these ranges, estimates derived from the unweighted data can be significantly different from those derived from the weighted data and could lead to erroneous conclusions.

The cases for the SPA survey are also weighted to the entire U.S. population (civilian and noninstitutionalized) by month*. Thus, each month's

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* The weight assigned to a person in SPA for a single month is equal to the following product:

```
(BASIC WEIGHT) X (ADJUSTMENT FACTORS WITHIN  X (SECOND-STAGE RATIO
                  SPA NONINTERVIEW)             ESTIMATION FACTOR)
```

where the:

1. BASIC WEIGHT OF A PERSON = Final survey weight for the person
   X 36 (Since SPA is only 1/36 of
   full sample for the larger survey)

and the:

2. WITHIN SPA NONINTERVIEW ADJUSTMENT FACTOR for the SPA sample persons is computed for persons interviewed in the larger survey who were not interviewed for the SPA.

and the:

3. SECOND-STAGE RATIO ESTIMATION FACTOR is also the same as for the large survey.

SPA data can be used to examine between-month differences in common data items and for estimation of portions of the data that were only collected for several months.

The weights assigned to the SPA cases are based on several factors. The first of these is the final larger survey person weight. This weight is the reciprocal of the sampling rate of the monthly larger survey population, adjusted for nonresponse, and aligned to population estimates by age, race, and sex. This adjusted weight is then multiplied by the reciprocal of the subsampling rates for the SPA, as applicable, since only part of each month's larger survey sample was used. At this point, the weighting procedure is tailored to the SPA survey.

The SPA person noninterview weights are used to modify the weights in the same manner as with the larger survey. These weights are again adjusted to age, race and sex population controls. Additionally, the same basic procedure is used for the SPA household weight which is derived from the final larger survey household weight. Because the SPA household weight is assigned to all SPA person records for a particular larger survey household, a separate variable must be used in conjunction with the household weight to avoid multiple counting of the household weights.

The use of the SPSS package for the analysis of the SPA data puts a restriction on the use of the assigned weights on the public use tapes. The restriction occurs when printing the output from any SPSS procedure. Since SPSS output only allows nine significant digits, one must first round the weights to the nearest whole number before using the SPSS programs. This rounding occurred immediately following division by the factor for the appropriate number of months, or in place of this division if only one month's data were analyzed.

9) METHODS OF STATISTICAL ANALYSIS

The arts participation data collected in the Survey of Public Participation in the Arts were subjected to several types of statistical analyses. These ranged from simple tabulations to complex multivariate analyses.

Among the techniques employed were:

1. Simple tabulation of the number of responses to each question. How many of the 17,254 respondents in the survey said they attended an opera? Or, of those asked how many said they liked to listen to jazz -- or had taken music lessons?

2. Simple percentages of respondents giving various responses to each question. What percentage of respondents said they went to an opera or had ever taken a music lesson? Simple tabulations of responses are of limited value, without reference to some base figure or denominator. The most common and useful base is the percentage, calculated as the number of respondents going to the opera divided by the total number of respondents. Percentages make it possible to compare responses to questions across groups or across surveys. In the present survey, for example, some questions were asked of all 17,254 respondents, while others were only asked of a third or a quarter of these respondents; these responses can only be compared on the basis of percentages.

3. Weighted percentages of responses to each question. What percentages of respondents -- weighted to be representative of the entire population -- went to an opera or took a music lesson? In the present sample, it was not possible to ensure that precisely correct proportions of males, blacks, or elderly people were included. If the proportion of males included were only 44% and the Census Bureau estimates that 48% of the popu-

lation is male, then the male responses need to be weighted by 48/44 or 1.09 to be sure that males are included in their true proportion. Such weightings were performed on the present sample by attaching a group weight to each respondent in the sample.

4. Sampling errors for responses. All surveys are subject to variability simply because only a sample and not a population is interviewed. It is possible (but not probable if the sample is large) that a sample could, by random fluctuation contain too many opera-goers or people who like jazz music than is true in the population as a whole. Some error statement needs to be attached to population proportions to reflect this margin of uncertainty. These error factors are calculated using statistical formulas and calculations from the sample itself -- namely by dividing the sample in half at random several times and observing how much proportions vary across these different samplings.

5. Population projections of responses to each question. How many million people in the United States' overall population say they attend operas or enjoy jazz music? This can be calculated (with appropriate sampling errors attached) simply by multiplying the weighted percentages by the adult population figure for the entire U.S., namely the more than 164 million adults who were estimated to be living in this country in 1982. These projections are subject to the same sampling errors noted above.

6. Cross-tabulations (weighted) of arts-related responses with other survey variables. This allows one to see whether respondents who say they have been to an opera are more likely to be male or female, or young or old, or more or less likely to attend other types of arts performances. The approach involves a different level of analysis since two variables are being examined, not just one. In essence, it can be seen that what is in-

volved is a separate set of frequencies or percentages for each demographic group (e.g., one set for males, one set for females). In order to state whether the two variables are related to one another, several options are available: comparison of percentages, depiction of these percentage differences by bar charts or other graphic forms of comparison, or use of summary measures of association or correlation between the two variables (see point 8 below). Cross-tabulation allows the policy maker to locate segments of the population that are high or low in arts attendance or to see whether groups participating in one arts activity also participate in another.

7. Adjusted cross-tabulations take into account the fact that other variables may affect the two-variable cross-tabulation. This approach allows one to examine whether any differences between men and women, say in attending the opera, are, in turn, due to other factors that differentiate men and women -- age, income, occupation, etc. A descriptive example of a statistical technique that provides such adjusted figures, called Multiple Classification Analysis, is given in Section X of this chapter. The value of these adjusted numbers is that unadjusted numbers give an oversimplified picture of actual situations. It makes limited sense, for example, to talk of general differences between blacks and whites (or men and women) in America, when the two groups differ so widely on socio-economic or age factors. Adjusted figures convey that meaning much more clearly.

8. Measures of association, correlation or "overlap". Measures of association or correlation attempt to convey the strength of a relation between two variables in a cross-tabulation in a single standardized number, ranging between 0 (no association) and 1.0 (perfect association).*

If, for example, 3% of men and 3% of women attended opera, then the correlation between sex and attendance should be 0, or close to 0. If 100% of men and 0% of women attended opera, then the correlation would usually be 1.0 or close to 1.0. Very few associations in survey data come close to 1.0, or even exceed coefficients of .25.

These correlation measures thus offer a useful perspective on the degree of "overlap" between arts attendance variables. In the same way that we examined the overlap between sex and attendance in the above paragraph, we can use these coefficients to gauge the extent of overlap between attendance variables. If 3% of the opera goers go to jazz performances and 3% of the non-opera goers also go, then the overlap between opera and jazz attendance is only what would be expected by chance and so the correlation is zero. On the other hand, if 100% of the opera-goers go to jazz performances and 0% of non-opera goers go, then the overlap is perfect and the correlation is +1.0. If no opera goers go to jazz concerts and 100% of non-opera goers go, then there is no overlap in attendance and the correlation is -1.0.

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*These coefficients are given + or - signs depending on whether the two variables both increase together (positive sign) or go in opposite directions (negative sign). It should be noted that there are several correlation coefficients, each with different assumptions and formulas.

There are alternatives to the correlation coefficient, based on the "odds ratios" that are coming into increasing statistical usage. These odds ratios are calculated simply by dividing one set of odds by another. If, in the above example, 3% of the men and 3% of the women go to the opera, an odds ratio of 1.0 (3 divided by 3) is obtained; if 1% men and 50% women go, an odds ratio of 50.0 is obtained. Odds ratios are simpler to calculate and understand than correlation coefficients, but they are less familiar and standardized for statistical analysis. They cannot be used with well-developed techniques for clustering large sets of variables (as in this study), such as for the factor analysis method described in the next section.

9. Clustering and factor analysis (multidimensional scaling) of correlation coefficients. Several analytic techniques for making it easier to examine the relationship (clustering) between several sets of variables come under the title multidimensional scaling. If one is examining 10 variables, for example, the number of cross-tabulations involved is 45. That means that an analyst would be required to sort through 45 separate cross-tabulations, comparing and cross-clustering each of them to summarize the results. If the number of variables is 20, the number of cross-tabulations involved is 190; for 40 variables, 780 cross-tabulations are needed. There is no simple or effective way to deal meaningfully with such quantities of data simply by using cross-tabulations.

Perhaps the most widely used technique for reducing large numbers of variables to a minimal number of basic factors, dimensions, or typologies is factor analysis. Factor analysis was developed to generate such basic dimensions using the correlation coefficients as the basic measure of the strength of the relation between variables. A detailed example of how the technique can be employed and the dimensions or clusters it generates is given in the next section.

Factor analysis results can be used in several ways. One can examine graphic plots of the variables in the "space" that is generated and pick out clusters of variables that go together. Or, more traditionally, one can use the factors or dimensions that are suggested to group related variables on that basis. If the factor analysis were, for example, to show opera and classical music on the same factor and jazz, rock, and big band music on another factor, then one has some justification in creating summary measures (or indices) of two separate music factors -- one for traditional (or enduring) music and one for popular (or more up-tempo, louder, or more current) music.

10. Constructing indices that summarize several related variables. Once one has identified sets of questions or variables that can be related, there are efficiencies to be gained in creating an index to summarize those variables. The simplest method of indexing is to assign one "point" for each variable on the dimension which the the respondent gives a positive response. For example, if a respondent says she likes rock and big band music, she receives a score of two on the index of "popular" music; if another respondent says he attended a classical music concert and a ballet, he would receive a two on an index of arts attendance. More precise indices could be constructed by using the factor weights for each variable prescribed by the factor analysis or by using the weighting schemes.

The value of indices is that they summarize responses to several questions with a single score. In Chapter 3, for example, we create a single index of arts attendance based on responses to seven separate questions. Instead of having to examine seven different questions, this allows us to examine one score to obtain a clear overall perspective on all facets of attending arts events. For example, what groups in the population or areas of the country are more or less active in arts participation in general? What groups are more or less interested in traditional or popular music?

11. Multiple regression analysis to construct predictive models of participation or of indices of participation. As an overall summary statement of the results of the above procedures, multiple regression answers the question, "What are the most important factors in predicting whether one goes to the opera or likes jazz music?" Or if one projects a particular age distribution or income distribution in the future, what effect might that have on opera attendance?

Unlike factor analysis, regression analysis requires the analyst to focus on one particular "dependent" variable, be it arts attendance, media usage, or liking music. It is especially efficient to conduct such regression models with a summary index of some set of variables as the focal point.

In Chapters 5 to 10 for example, index measures of mass media participation and socialization experiences are used to predict an index of arts attendance constructed in Chapter 3. In other words, it becomes possible, with regression analysis, to reduce an almost unlimited set of possible cross-tabulations to a few summary tables that allow one to gauge, almost in one handy format, whether a particular factor is likely to make much of a difference in arts participation.

10) MULTIPLE CLASSIFICATION ANALYSIS (MCA)

There is a very large number of variables in the Survey of Public Participation in the Arts: the ten core attendance items (Chapter 3), the 26 life-style participation items (Chapter 5), the 17 media participation items (Chapter 6), the 14 socialization items (Chapter 7), the seven participation barriers items (Chapter 8), the 13 music preference items (Chapter 9) and the performance location item (Chapter 4). In addition there are well over 20 variables related to each respondent's general social and demographic background.

Cross-tabulation is the most straightforward and traditional way of showing the interrelation of such items in a social survey. However, in the case of the over 100 variables in the Survey of Public Participation in the Arts, that would involve over 5,000 of these cross-tabulations -- an extraordinary number both to process and to display. Moreover, it is an inordinate number to comprehend or to put into larger perspective, particularly since many of the variables are closely or subtly tied together, (e.g., attending concerts is related to attending the ballet; education is tied to annual income or geographical area).

To put these data in a clearer and broader perspective, we have employed a statistical technique called Multiple Classification Analysis (MCA), which was developed by Andrews et al.(1973). MCA was developed for efficient analysis of multiple variable data sets like that collected in the SPA. It can show the interrelations between variables as effectively as a single cross-tabulation, and it can further show the results of cross-tabulations with related variables at the same time. It can convey the same incisive conclusions as multiple regression analysis or analysis-of-variance (ANOVA) techniques, but in a way that can be easily comprehend-ed by anyone familiar with the logic of a cross-tabulation.

An Example:

The example provided in Tables 2.6 to 2.8 is intended to illustrate the logic and power of MCA. The example uses attendance at musicals as the variable to be predicted (called the "dependent" variable), and it examines how well the respondent's education and race (the "independent" variables) can be used to predict such attendance. As shown in Chapter 3, some 19% of the respondents in the SPA reported attending a musical stage play in the previous 12 months. The cross-tabulation of attending musicals by education as given in Table 6 shows that such attendance varies widely by that factor: only 4% of those with a grade school education reported attending a musical (i.e., 96% did not attend) and only 6% with some high school education attended. Yet attendance was about 9 times as high (45%) at the other end of the education spectrum -- those with graduate school education. In other words, respondents with graduate school education are almost 9 times as likely to say they attend musicals (45%) as those with less than a high school degree (about 6%).

There are also large differences in attending musicals by race, as shown in the bottom (second) cross-tabulation in Table 2.6. Some 20% of all white respondents reported attending musicals in the last 12 months, compared to 10% among blacks and 13% among respondents of other minority racial backgrounds (Asian Americans, Hispanics, etc.). Thus, white attendance exceeded black attendance by 10% and "other" racial group attendance by 7%.

Table 2.6, then, contains two independent cross-tabulations, one for education and one for race. However, the two predictor variables of race

Table 2.6: Rate of Attendance at Musicals by Education and Race

a) Education:

		Attend		Not Attend		Total
Grade School	(2,067)	4%		96%	=	100%
Some High School	(2,238)	6		94	=	100
High School	(6,494)	14		86	=	100
Some College	(3,348)	27		73	=	100
College Graduate	(1,795)	37		63	=	100
Graduate School	(1,300)	45		55	=	100
		---		---		
Total Sample*		19%	+	81%	=	100%

b) Race:

		Attend		Not Attend		Total
White	(15,167)	20%		80%	=	100%
Black	(1,673)	10		90	=	100
Other	(403)	13		87	=	100
		---		---		
Total Sample*		19%	+	81%	=	100%

*Total sample responses do not sum to 17,254 due to very small numbers of respondents who failed to answer the education and race items.

and education are not independent of each another. Both blacks and other minority racial groups in the country have less formal education than the white population. That raises the question of how much of the racial differences in attending musicals are indeed tied to race and how much these are a byproduct of the educational differences that exist between these racial groups.

One way to examine this question is to cross-tabulate attendance at musicals by education separately for each racial group. These separate tabulations are shown in the middle columns of Table 2.7. The first column in parentheses shows the same overall differences by education presented in Table 2.6a. The second column shows these same differences but only for the white respondents in the survey; the third column shows results only for black respondents and the fourth column for respondents of "other" racial backgrounds. Note the percentages at the bottom of each of the last three columns: they equal the 20% white attendance, 10% black attendance and 13% "other" attendance, found in Table 2.6b.

The racial comparisons between columns 2 and 3 of Table 2.7 are now more precise because they contrast whites and blacks with the same educational level. Grade school educated blacks are compared with grade school educated whites, and grade school educated persons in "other" racial groups, and so on for each educational level.

As might be expected, the overall racial differences of ten percentage points between whites and blacks is reduced considerably within most categories of education. Some 3% of grade school educated blacks attended musicals compared to 4% of grade school educated whites, a difference of only 1 point, not 10 points. Similarly for high school graduates, the difference is only 5 percentage points, and not 10 points. The racial

Table 2.7: Calculation of Education-Adjusted Differences in White and Black Rates of Attendance at Musicals

			Attended Musicals			Differences		% of		Education Adjusted
	Total Sample		White	Black	Other	White-Black		Sample		Differences
Education:										
Grade School	(4%)	(4)	4	3	4	+ 1	X	.12%	=	.12
Some High School	(6)	(6)	7	3	0	+ 4	X	.13%	=	.52
High School	(14)	(14)	14	9	8	+ 5	X	.38%	=	1.90
Some College	(27)	(27)	28	19	16	+ 9	X	.19%	=	1.71
College Graduate	(37)	(37)	39	29	20	+10	X	.10%	=	1.00
Graduate School	(45)	(45)	46	33	22	+13	X	.08%	=	1.04
TOTAL	(19%)		20%	10%	13%			100%		6.29

differences for the six education groups in order are 1, 4, 5, 9, 10 and 13 percentage points. These differences average 6 percentage points after weighting for the different size of each educational group (shown in the second to last column of Table 2.7).

In other words, when we take the step of comparing racial groups with the same educational level, the original 10 point gap between whites and blacks in Table 2.6 reduces to an average of only 6 points. (When calculated the same way, the difference between whites and "other" races increases rather than decreases, with whites averaging a 10% higher participation than persons in other racial groups when education is controlled for, compared to the original, unadjusted difference of 7%.)

That is the same analytical logic and approach that is employed in Multiple Classification Analysis. While the MCA procedure does not show the inner details of the separate Table 2.7 breakdowns, it does show the same end results -- the 10 percentage point difference (20% white vs. 10% black) in Table 2.6 is reduced to an average of 6 points (20% white vs. 14% black) after controlling for differing educational levels among blacks and whites. Results of an MCA analysis are generally presented in the format appearing in Table 2.8.

The analyses in Table 2.8 represent a very simple application of MCA to only two variables (race and education). However, the world of arts participation and attendance, like other forms of human behavior, involves far more than two or three variables. The unique value of MCA is realized when one uses the technique to separate the effects of not just two but three, five or ten factors that affect participation.

Table 2.8: Rate of Attendance at Musicals by Education and Race, Before and After MCA Adjustment

	Before Adjustment	After Adjustment
Overall Attendance	19%	19%
Education:		
Grade School	4%	5%
Some High School	6	6
High School	14	14
Some College	27	27
College Graduate	37	38
Graduate School	45	45
Race:		
White	20	20
Black	10	14
Other	13	10

Adding a third independent variable:

Take, for example, the factor of income. Attending musical performances, particularly musicals, can cost 10, 20 or even 50 dollars. Obviously people with higher incomes can find it much easier to afford to attend musicals than less affluent individuals might. How much does income account for the educational or racial differences in Table 2.6? Table 2.9 shows the separate two-way cross-tabulation for income and education, like the Table 2.7 cross-tabulation of race and education.

Table 2.9 shows that there are substantial income group differences in attendance at musicals. These differences by income level are almost as large as the differences by educational level shown in Table 2.6 -- from 4% of grade school graduates to 45% for those who had graduate school education -- from 10% attendance for these with less than $5,000 annual income to 44% among those with $50,000 or more annual income.

But the entries in the body of Table 2.9 show that within separate educational categories these income differences are not as great as they are overall. For example, in the first row of Table 2.9, we find that only 6% of the grade school educated with $50,000 annual income attend musicals, compared to 4% for all grade school educated respondents. Similarly, only 7% of those in the "some high school/ $25-49,999" category attended musicals, compared to 6% of all respondents with some high school. In fact, the only income group that attends musicals well above average for each educational category is that over $50,000. Increasing income up to this point does not seem to predispose attendance at musicals.

At the same time, the education differences within each column of income categories remain very substantial. That indicates that it is the higher education of those with higher incomes that accounts for the large

Table 2.9: Rate of Attendance at Musicals by Education for Each Income Category

	Total	Family Income						
		Under $5,000	$5,000-9,999	$10,000-14,999	$15,000-24,999	$25,000-49,999	$50,000 +	$50,000 - $5,000 Differences
Education:								
Grade School	(4%)	1	3	5	7	10	6	5
Some High School	(6)	4	3	8	7	7	25	21
High School Graduate	(14)	6	8	12	13	19	26	20
Some College	(27)	30	22	17	24	30	50	20
College Graduate	(37)	40	23	34	27	43	49	9
Graduate School	(45)	37	34	29	41	46	58	21
Total	(19%)	10%	9%	13%	17%	23%	44%	16%

income differences in Table 2.9, and not something about income itself that predicts attendance at musicals.

The same difference between the predictive power of the income and education factors can be observed more concisely in the income differences shown in Table 2.10. The differences by income level are reduced considerably after MCA adjustment. The differences by educational level are not. As in Table 2.9, education emerges as the most prominent predictor of attending musicals, even after taking both income and racial differences into account.

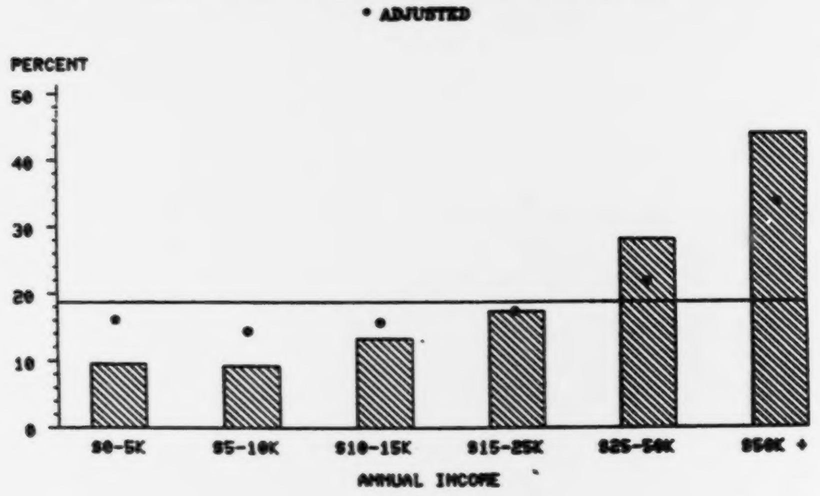
Graphic Portrayal of MCA Results:

Many of the MCA results like those in Table 10 have been presented in this report in graphic form. An illustration of these graphics is given in Figure 2.2 to show the relation between attending musicals and education, race and income. The bar chart in the top graph, for example, shows the sample (unadjusted) increases in attending these performances by education -- from the 4% attendance rate for those with grade school education to the 6% rate of those with some high school to 14% among high school graduates to 27% of those with some college to 37% of college graduates to 45% of those with graduate school education. That is the increase we find with education before adjustment, as shown by the progressive height of the bars in Figure 2.2c.

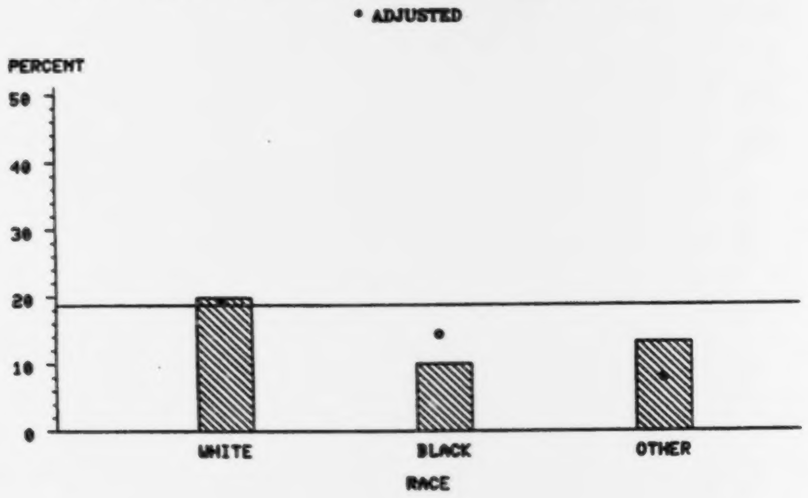
However, higher-educated people differ on demographic factors besides their formal education: having generally higher incomes than less educated people and having access to higher paying jobs, for example. College education is also related to race, so one might well expect that the increases in musical attendance reflect the lower likelihood of college educated people being black.

Figure 2.2: Graphic Portrayals of MCA Results*

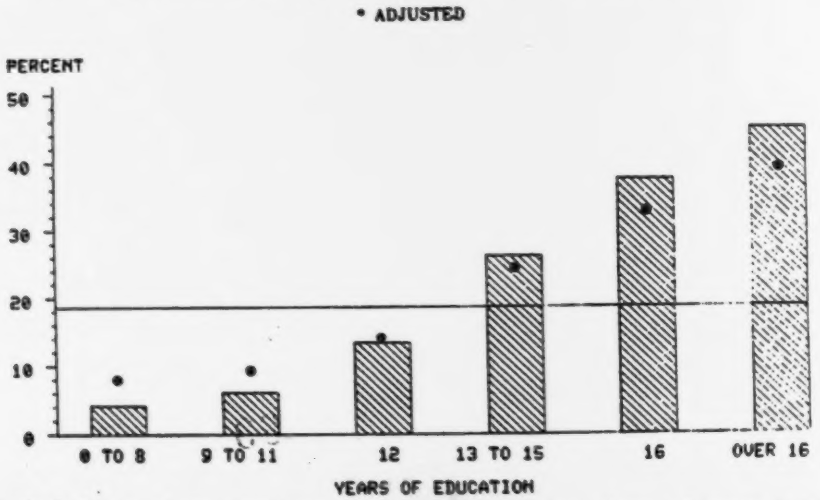
a) ATTEND MUSICALS BY INCOME



b) ATTEND MUSICALS BY RACE



c) ATTEND MUSICALS BY EDUCATION



*Shaded bars show unadjusted results; dots show adjusted results.

Adjusting the education differences in the Figure 2.2a bar chart to control for the influence of these other related factors results in the (adjusted) values shown with a dot ●, in each bar in Figure 2.2c. These adjusted values reflect what the percentage attending musicals for each group would be if each education group were equivalent in terms of income and race. The ● for the grade school educated, for example, is slightly higher (7% - 4% = 3%) than prior to adjustment. That indicates that grade school educated people are still less likely to attend musicals than higher educated people, even taking into account their lower income, or greater likelihood of being black. The figure for those with graduate school education is similarly lower (40% vs. 45%) than it was prior to adjustment.

We have also already noted how the racial differences between blacks and whites decline after adjustment by MCA for other factors. The same is true for the factor of income. Note how relatively flat the distribution of dots is up to the $25,000 income bracket. There is some increase for the $25,000 - $49,999 category to 24% and then a larger climb to 35% for those with over $50,000 reported annual income. But for the majority of the population earning less money, income per se seems unrelated to attendance.

Table 2.10: Rate of Attendance at Musicals by Education, Race and Income, Before and After MCA Adjustment

	Before Adjustment	After Adjustment
Overall Participation Rate	19%	19%
Education:		
Grade School	4%	7%
Some High School	6	9
High School	14	14
Some College	27	26
College Graduate	37	34
Graduate School	45	40
Race:		
White	20	20
Black	10	15
Other	13	8
Income:		
Under $5,000	10	16
$5 - 9,999	9	14
$10 - 14,999	13	16
$15 - 24,999	17	17
$25 - 49,999	28	24
$50,000 +	44	35

How MCA is Used in This Report:

The use of MCA in this report is generally for global descriptive purposes rather than for in-depth analysis. That is, we use MCA to identify those factors that remain the most important predictors of arts participation after other factors are taken into account. It is also used to identify factors whose relation to participation may be "suppressed" by other factors, as, for example, when women have lower participation because they are older or have less education than men.

The present analysis is intended to identify effective predictors of arts participation, but it will not determine why various results change after adjustment. While it is possible to use MCA to analyze such dynamics, the large number of arts participation variables of interest in the SPA make such an ambitious and time-consuming effort beyond the scope of the present report.

Another technical aspect of the MCA analysis presented in the report concerns the reporting of statistical significance. As of this writing, there is no acceptable, straightforward method of arriving at the complex sampling error figures necessary to conduct tests of statistical significance for MCA results properly. Calculations are provided in the analysis of what the overall significance of particular variables are, but there are two problems with these significance figures:

1) Because the SPA sample sizes involved are large (particularly after the data are weighted to project population estimates), virtually all (or well over 90%) of the variables emerge as statistically significant beyond the .001 level of chance.

2) These figures refer only to the overall variable and not to particular categories within that variable. For example, we may find that age is a significant predictor, but we do not know if that is because of the differences for the older age category, the younger age category or the middle age category;

> in the case of race, we do not know if it is the white sample or or the black sample or the "other" sample that is significantly different.

Nonetheless, with the MCA results we can identify the specific categories that are high or low before and after adjustment -- and those that are on the same comparative scale. These statistics can be immediately understood by a non-statistician. These are communicable features that are not available on other regression or multivariate analysis programs of which we are aware.

11) FACTOR ANALYSIS (CLUSTERING)

The process of discovering basic dimensions or clusters of variables is accomplished in a very straightforward manner by factor analysis. Factor analysis provides an objective basis to construct indices or summary measures. The mathematical foundations of factor analysis are too complicated and technical to be described in this report. The interested reader can find such exposition in several textbooks that have been devoted to the topic (Harman 1965; Kim and Mueller 1978). But the main values and outputs from factor analysis for policy analysis purposes can be described briefly as follows.

Factor analysis basically assumes that each variable exists in a position in a space of many dimensions. Factor analysis attempts then to discover and map the dimensions of that space and where the variables fit in that space according to the available observed data. With no other information other than the correlation of each variable with every other variable, and with no indication of what these variables are or how they logically should cluster together, factor analysis programs generate a series of dimensions that seem to best describe the multidimensional space in which these survey variables are located.

For example, assume we had the simple case of four variables related to jazz vs. classical music and listening to that music either on radio or watching it on TV. That leads to four basic variables: 1) watching jazz on TV, 2) listening to jazz on the radio, 3) watching classical music concerts on TV, and 4) listening to classical music on the radio. There are several possible ways these variables could be clustered in reality: by type of music, by type of media, or by some other criteria. What factor analysis can do is to uncover the criteria or dimensions on which they do cluster, given the pattern of correlations that are observed between the four variables.

As one example, assume that the music-liking population basically divides itself into those who like jazz and those who like classical music, both of whom follow their favorite forms of music avidly on both radio and television. In other words, there is a strong correlation (overlap) between enjoying jazz programs on television and on radio; and a strong correlation between enjoying classical music on radio and on television. That high correlation means that watching jazz on TV and listening to jazz on the radio are relatively close to each other in the multidimensional space and watching music performances on TV and listening to classical music on the radio are also relatively close. But neither of these two music clusters is close to each other.

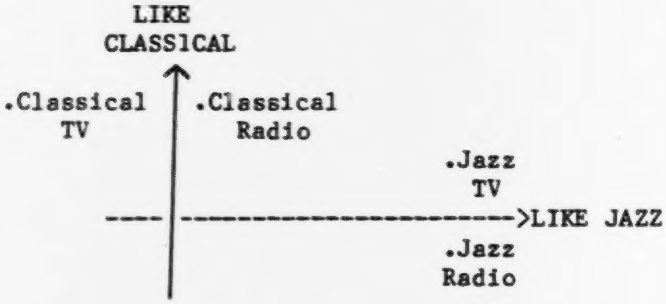
Assume further that people who like jazz don't like classical music and vice-versa. That would lead to the four variables being described in the following single dimension:

```
                    .TV                            .TV
LIKE CLASSICAL      Classical                      Jazz              LIKE JAZZ
 AND <--------------------------------------------------------------------> AND
DON'T LIKE JAZZ     .Radio                         .Radio   DON'T LIKE CLASSICAL
                    Classical                      Jazz
```

To construct an index to represent this single dimension, one could construct a four item index with respondents given one point for each response: 1) Watch classical on TV, 2) Listen to classical on radio, 3) Don't watch jazz on TV, 4) Don't listen to jazz on the radio. The more points on the scale, the closer the person is to the left-hand end of the scale (LIKE CLASSICAL AND DON'T LIKE JAZZ); the fewer the points, the more the person is at the right-hand end of the scale (LIKE JAZZ AND DON'T LIKE

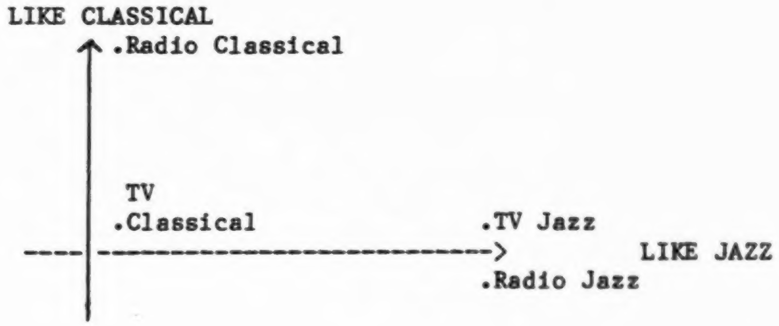
CLASSICAL). Here, then, only one index or dimension is required to sum up variations in response to these four questions.

But, as a second example, suppose instead that the correlation coefficients show that liking jazz and liking classical music are not polar opposites, but are almost unrelated to one another. In other words, there is no correlation or association between liking jazz and liking classical music. Here the factor analysis is likely to generate a two-dimensional solution that could well take the following form in spatial terms:



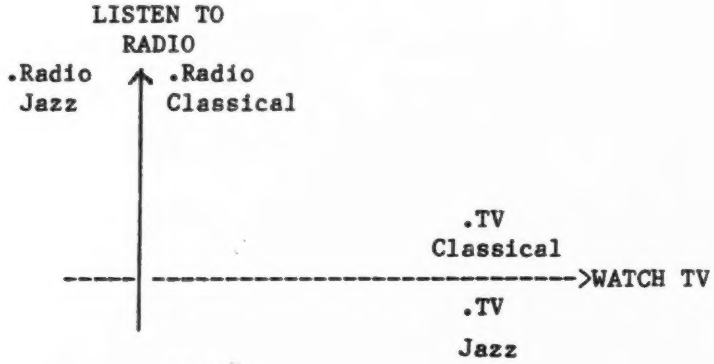
(Here the intersection point is arbitrarily defined to denote the presence of a second dimension.) Such a configuration suggests the need for _two_ dimensions to describe the data, one dimension for classical music and one dimension for jazz. That indicates the need for two indices of two items each, a classical one scored 0, 1, or 2 depending on whether the person watched or listened to _no_ classical music (0), enjoyed classical music _either_ on radio or on TV (1), or on _both_ radio and TV (2). The two item jazz index would be scored in the same way. When there are two dimensions, use of two indices makes more sense.

The same logic applies when there are three dimensions in the data. This would be the case if, for example, listening to jazz on radio and watching jazz on television _were_ related (as above), but that was not true for classical music-- so that listening to classical music on the radio was unrelated both to watching classical music programs on TV and to listening and watching jazz. In that case, we might have:


LIKE CLASSICAL
.Radio Classical
TV
.Classical
.TV Jazz
LIKE JAZZ
.Radio Jazz

where the position of the TV classical variable needs to be visualized as being located on a right angle from the page in a third dimension. Here three indices seem called for: one for jazz (on either radio or TV), one for classical music on TV, and one for classical music on radio.

Thus, as noted above, factor analysis has the ability to discover which of these or other patterns best describes the relations between variables. We might well discover that the variables are more organized around the types of mass media than around the types of music as portrayed above. In that case, it would be more appropriate to construct our indices on that basis. If, for example, the factor analysis generated a two- dimensional space like the following:


LISTEN TO
RADIO
.Radio
Jazz
.Radio
Classical
.TV
Classical
WATCH TV
.TV
Jazz

then it would seem that the most logical indices are a two-item measure of TV users and another two-item measure of radio users.

Another possibility is that *all four* variables cluster *together* on one dimension, but not apart from each other on that single line as in our first examples. Visually, this would look like:

```
                          .TV  .Radio
                          Jazz  Jazz
------------------------------------>MEDIA
                     .Radio     .TV  MUSIC
                   Classical  Classical
```

Since all four variables cluster together, this suggests people's media behavior is organized around one type of music on any type of mass medium. The appropriate index here would be based on four items -- a person answering "yes" to all four questions scoring a four, "yes" to three scoring a three, etc. down to zero.

All these examples should make these five points about factor analysis clear:

1) It generates different dimensions depending on the pattern of correlations that is observed.

2) Interpretation of these resulting dimensions is dependent solely on the investigator's (human) judgement of what it is that leads to the clustering of variables in that space--even though the dimensions are derived by mathematical formulas.

3) Factor analysis depends solely on statistical correlation or association between variables and employs no prior logic about how the variables ought to be related. It has no ideas or assumptions of what association makes sense.

4) It thus attempts to uncover or discover "spaces" rather than to fit any preconceived pattern of how variables ought to be situated in that space.

5) It suggests variables that ought to go together to form indices,

but the actual index construction is a separate process.

With regard to the latter point, it will be noted that we do not believe in slavishly following the factor analytic results. That is because the factor analysis may well group variables together that make minimal or no analytic sense when lumped together into a single index. For that reason, we have leavened the factor analysis results in chapters 5 to 9 with our own "common sense" indices that summarize variables that should be added together to understand and clarify how the study variables relate to one another.

It might be well to illustrate the complexities and ambiguities inherent in most factor analyses with a specific "real life" example from the present study. In Figure 2.3, we have presented the results of a factor analysis for SPA media variables alluded to in the above illustration. The 12 variables involve three types of mass media (television, radio, and recordings) and four types of music (jazz, classical, opera, and musicals). The basic question for the factor analysis, again, is: Are people's behaviors with regard to music consumption via the mass media more dependent on the music or more dependent on the medium?

The array of points in Figure 2.3 indicates a mixture of both. The main, horizontal dimension separates certain TV responses (for classical items (4), for opera (7), and for musicals (10)) from their counterparts on radio and records (items 5 + 6, 8 + 9, and 10 + 11). That suggests that the medium is the major dimension involved, but only for these three types of music, and not for jazz.

On the other hand, the second factor shown on the vertical dimension is a music dimension. That dimension clearly separates the (clustered) jazz responses (items 1, 2, and 3) from the responses to the other three types of music (items 4 through 12).

In the same way, the third dimension (which is circled and must be visualized as coming up straight from the page) once again indicates a medium-oriented factor since it groups the four items related to watching music programs on TV (items 1, 4, 7, and 10).

Thus, of all the possible ways one might find that the 12 variables organized, this factor analysis suggests responses to these questions organize themselves around three dimensions:

1) Radio/recordings of classical music, opera, and operetta/musicals
2) Jazz (on radio, TV, and recordings)
3) TV music

Three indices that are thus suggested are a six-item one for radio/recordings, a three-item one for jazz, and a four-item one for TV music. This does not suggest that it would not be worthwhile to create other dimensions, say for classical music, for listening to music on radio, or for all 12 items together. It suggests that the three dimensions on Figure 2.3 have the strength of at least some statistical or empirical logic behind them.

12) INDEX CONSTRUCTION

There are two major reasons for attempting to analyze survey data by index construction. They are to increase reliability and to increase efficiency.

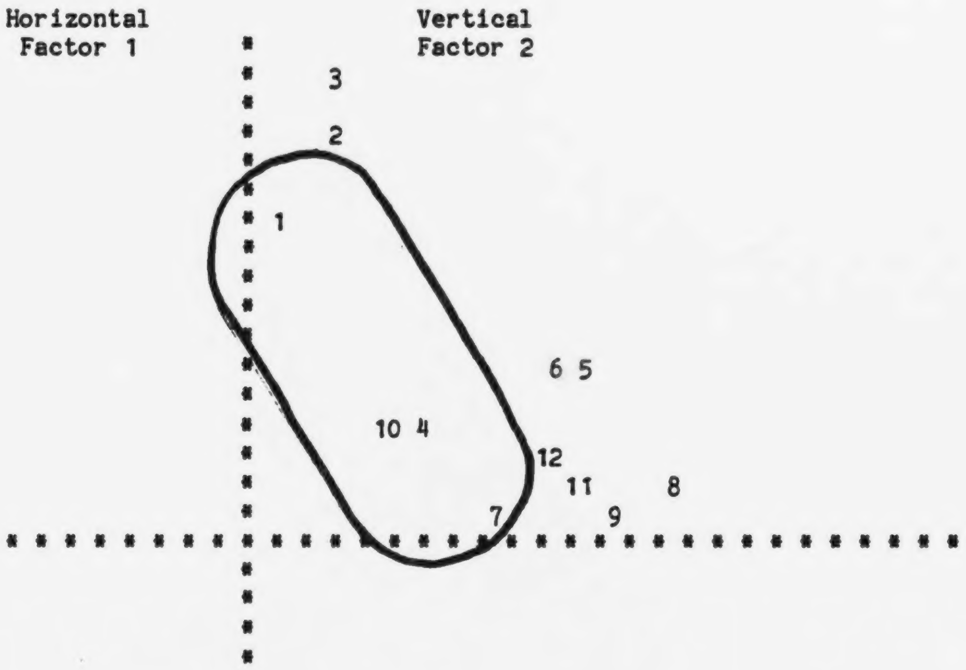
Reliability is increased because one does not have to depend on individual responses to a single item. On any given item, respondents may misinterpret the question, be misled by a single word, or give an incorrect answer in any number of ways. Having responses to additional questions, which have varied wording and varied perspectives allows the researcher to be more sure that respondents are, for example, more active in the arts, or more active users of mass media for arts-related activities.

Efficiency is increased because instead of analyzing 5, 10, or 20 items separately and encountering possibly numerous idiosyncracies in each, one can lump these items together in a single variable. As we have seen, factor analysis is a very useful tool for identifying 1) which items to put into an index, and 2) how many indices to create.

In order to keep the analyses in this report at the least complicated and most understandable level, we have used a very simple method of constructing indices once they have been defined. That method is to assign a single point to be given for each appropriate response in that index (e.g., one point for each arts activity, or one point for each type of mass media employed). While more sophisticated index construction schemes can be devised, this one has the value of maximum simplicity, interpretation and comprehensibility.

In examining index analyses in this report, it is also important to note that the construction of such indices does not imply that the activi-

Figure 2.3: Plot of Rotated Factors of Arts Participation via the Media



1=Jazz on TV
3=Jazz on Recording
5=Classical Music on Radio
7=Opera on TV
9=Opera on Recording
11=Musical on Radio

2=Jazz on Radio
4=Classical Music on TV
6=Classical Music on Recording
8=Opera on Radio
10=Musical on TV
12=Musical on Recording

ties and preferences within them are equivalent or interchangeable elements of experience. While the indices group these elements for a broader examination of the survey data, the relative influence of each variable incorporated in an index is also analyzed in the chapters to follow. Finally, while other index grouping of questions are certainly possible and meaningful, the indices used in this report follow the groupings of questions used in the questionnaire and in the individual chapters which compose this report.

Chapter 3

ARTS PARTICIPATION

The SPA'82 began with a series of "core" questions designed to describe participation in eight main arts-related activities in the United States. These core questions were asked of all respondents in the survey and measured their participation in the arts during the previous twelve months. "Participation" included being either in the audience for some live arts performance or a performer in a live arts event. Participation also included reading certain types of literature, such as novels, short stories, poems or plays. The core arts participation questions in this study, then, included attending live performances or art displays, reading certain forms of literature, and performing in a public arts event.

This chapter examines these questions and the tabulations of respondents' answers to them, aggregated for all 12 months of the survey. The analysis in this chapter transforms these responses into several formats for analysis and consideration:

1) Estimates of the participation rate and the number of participants for various art forms--these estimates indicate the relative amount of public activity in each of the art activities. For instance, how many Americans attend opera or attend ballet? What proportion of Americans performed in a live public arts event, or read novels, short stories, poetry or plays?

2) Differential participation rates within several demographic groups--this analysis examines differences in participation among people with different backgrounds and major predictive variables for each arts activity (e.g., are blacks more likely than whites to attend jazz performances).

3) Differential participation by each demographic

group when the associated influences of other demographic variables are controlled statistically--this analysis suggests the reasons why differences occur among sub-groups within a demographic variable. For example, are the differential participation rates among whites and blacks attributable to other factors associated with race, such as education and income? Is it the higher educational level of whites that accounts for their greater arts participation?

4) The extent of overlapping audiences of art forms indicated by correlations between pairs of arts activities--these correlations show which art forms have more "overlap" across audiences. Are people who attend jazz performances, for example, more likely to read literature or to attend musicals as well?

5) An index of overall cultural participation in these art forms by demographic groups--this analysis allows prediction of a broader spectrum of participation based on background factors. For example, do blacks or whites tend to participate in a greater number of types of arts activities?

1) CORE QUESTIONS AND RESPONSES

The core questions ask about attendance at seven types of live performances or art displays:

- jazz
- classical music
- opera
- musicals or operettas
- non-musical plays
- ballet
- art museums and galleries

Questions 8 and 9 ask whether the respondents had themselves performed in (or rehearsed for) such public performances, by playing a musical instrument, by acting, singing, or dancing. The final core question, question 10, asks about reading novels, short stories, poetry, or plays. All ten questions ask about participation in the last 12 months. Table 3.1 shows the exact wording and format of the core questions.

As Table 3.1 shows, if respondents answered "yes" to the initial questions on participation, follow-up questions were asked about the number of times he/she had participated during the previous month. For the next two questions on performing and rehearsing, those who reported participating in the last 12 months were asked only about their type of performance or rehearsal activities during that 12-month period. Thus, while the time frame for follow-up questions to the first seven questions is the previous month, the time frame for the follow-up questions to Questions 8 and 9 is the previous year.

Responses for each of the core questions in Table 3.1 show the number of respondents falling into each response category. For instance, responses to Question 1 on attendance of jazz performances indicate that of the total of the 17,254 respondents, 15,601 said they had not attended a live jazz performance during the previous year. The remaining 1,653 respondents fall into two categories: the 1,622 (the sum of all respondents reporting some attendance for the previous month or 1111 + 351 + 122 + 22 + 16) who reported going to a jazz performance in the last 12 months and the 31 respondents who did not give a codable response. The first set of numbers is a breakdown of the number of respondents who reported different frequencies of attendance for the last month. For example, of the 1,622 who had attended a jazz performance in the last year, 1,111 said they had not attended a jazz performance in the previous month, while 511 had. Of those, 351 had attended in the previous month, 122 two or three times, 22 four or five times and 16 six or more times. The responses to questions 2 through 7 follow the same format as Question 1.

The exact wording of the questions in Table 3.1 provides further details about the survey's operational definition of arts participation. The survey's definition of attendance at musical and non-musical stage plays, for example, excludes grade school and high school productions. While the raw tabulations in Table 3.1 suggest certain differences across activities, substantive conclusions from the Table 3.1 data require further analysis involving weighting, percentaging, and other statistical manipulations of these data.

Table 3.1: Distribution of Responses to Core Participation Questions (N=17,254)

1. The following questions are about YOUR activities during the LAST 12 months – – between ________ 1, 19___, and ________ ___, 19___.

During the LAST 12 MONTHS, did YOU go to a live jazz performance?

0 ☐ No n=15,601

Yes – How many times did you do this LAST MONTH – – between ________ 1, and ________ ___, 19___?

1 ☐ None 1111
2 ☐ One 351
3 ☐ 2–3 122
4 ☐ 4–5 22
5 ☐ 6 or more 16 NA=31

2. (During the LAST 12 MONTHS,) Did you go to a live classical music performance? This includes choral music and instrumental or vocal recitals, as well as symphony and chamber music.

0 ☐ No 14,967

Yes – How many times did you do this LAST MONTH ?

1 ☐ None 1496
2 ☐ One 569
3 ☐ 2–3 162
4 ☐ 4–5 29
5 ☐ 6 or more 22 NA=9

3. (During the LAST 12 MONTHS,) Did you go to a live opera?

0 ☐ No 16,698

Yes – How many times did you do this LAST MONTH ?

1 ☐ None 395
2 ☐ One 113
3 ☐ 2–3 20
4 ☐ 4–5 4
5 ☐ 6 or more 4 NA=20

4. (During the LAST 12 MONTHS,) Did you go to a live musical stage play or an operetta? Do not include grade school or high school productions.

0 ☐ No 14,002

Yes – How many times did you do this LAST MONTH ?

1 ☐ None 2362
2 ☐ One 715
3 ☐ 2–3 145
4 ☐ 4–5 11
5 ☐ 6 or more 8 NA=11

5. (During the LAST 12 MONTHS,) Did you go to a live performance of a non-musical stage play? Do not include grade school or high school productions.

0 ☐ No 15,154

Yes – How many times did you do this LAST MONTH ?

1 ☐ None 1538
2 ☐ One 437
3 ☐ 2–3 93
4 ☐ 4–5 6
5 ☐ 6 or more 6 NA=20

6. (During the LAST 12 MONTHS,) Did you go to a live ballet performance?

0 ☐ No 16,493

Yes – How many times did you do this LAST MONTH ?

1 ☐ None 565
2 ☐ One 157
3 ☐ 2–3 27
4 ☐ 4–5 2
5 ☐ 6 or more 0 NA=10

7. (During the LAST 12 MONTHS,) Did you visit an ART gallery or an ART museum?

0 ☐ No 13,425

Yes – How many times did you do this LAST MONTH ?

1 ☐ None 2511
2 ☐ One 893
3 ☐ 2–3 312
4 ☐ 4–5 56
5 ☐ 6 or more 43 NA=14

8a. (During the LAST 12 MONTHS,) Did you play a musical instrument in a public performance or rehearse for a public musical performance?

0 ☐ No – *Skip to 9a* 16,586
1 ☐ Yes 668

8b. Did you play any classical music?

0 ☐ No 500
1 ☐ Yes 161

8c. Did you play any jazz?

0 ☐ No 512
1 ☐ Yes 135

9a. (During the LAST 12 MONTHS,) Did you act, sing, or dance in a public performance or rehearse for a public performance?

0 ☐ No – *Skip to 10* 16,473
1 ☐ Yes 781

9b. Did you act in a non-musical role?

0 ☐ No 633
1 ☐ Yes 133

9c. Did you sing in a musical play or operetta?

0 ☐ No 605
1 ☐ Yes 155

9d. Did you sing in an opera?

0 ☐ No 740
1 ☐ Yes 13

9e. Did you dance in a ballet performance?

0 ☐ No 737
1 ☐ Yes 21

10. (During the LAST 12 MONTHS,) Did you read novels, short stories, poetry, or plays?

0 ☐ No 7455
1 ☐ Yes 9737 NA=62

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2) POPULATION ESTIMATES OF ARTS PARTICIPATION

An important result of this national sample is its ability to provide estimates of the extent of public participation in each type of arts activity. Since a certain amount of sampling error can be expected in even the most rigorously developed sample, certain groups may not have been included in their true proportions in the population. The raw data shown in Table 3.2a are thus weighted by gender, age, and race groups in order to make projections to the entire U.S. adult population -- the nearly 165 million of these adults, 18 years or older. If, for example, the proportion of white males aged 18-29 in a particular sample category were only half as large as the national proportion indicated in Census Bureau figures, data from such respondents in the sample would have been given a weight of two. If it were three times as large, then a weight of one-third would be applied, and so forth. See Chapter 2 for more details about weighting. When such weighting procedures were applied to the data in Table 3.1, the results are as shown in Table 3.2a.

Thus, the weighted data indicate that 22% of the American public visited an art museum or gallery in the last 12 months. This percentage translates into 36,000,000 visitors at art displays in the country as a whole. Note that these population and percentage estimates should not be read with a false sense of precision because a small percentage of error can equal a large number of people. The final column in Table 3.2a indicates a +/- 1.14% margin of error in the estimate of attendees of art museums or nearly 2 million persons.

The range of attendance estimates in Table 3.2a is broad, spanning approximately 5 million for opera to 36 million for art museums. Attendance at art museums and galleries as well as musicals is estimated to be in the range of over 30 million; attendance at classical music, plays, and jazz performances fall into an intermediate range of 16-21 million; attendance at ballet and opera occupy a relatively low range of 5-7 million. In comparison, the reading of novels, short stories, poetry, and plays is the only type of arts participation in which over half of the population was involved during the previous year. Over 90 million Americans, according to our estimate, read such literature in the prior year.

Table 3.2b presents parallel figures for performing or rehearsing for a public performance during the past year. The estimates are again weighted to correct for any disproportionate representation of certain groups in the sample. The estimates for performance or rehearsal for a public performance tend to fall into the same order of arts-related activities as the attendance data. Playing classical music and singing in a musical play are both in the high range (representing nearly 1.5 million adults), playing jazz and acting in a non-musical play are in a somewhat lower range (of nearly 1.3 million adults) and dancing in a ballet and singing in an opera are in a much lower range, but still in the hundreds of thousands.

When art forms are rank ordered by the number of people attending performances and by the number of people performing in them, they fall in nearly the same order. This relationship is shown in Table 3.2c, which presents both sets of estimates for six art forms arrayed from left to right from highest to lowest number in terms of attendees. In terms of performances, the first and second ranks are reversed with performers in musicals ranking second to performers of classical music. The third and fourth ranks also switch, with actors in plays ranking slightly below people who play jazz music as performers. The final ranks remain the same with ballet performers being more numerous than performers in an opera. Thus, art forms with greater numbers of attendees tend also to have larger numbers of performers.

While the number of performers generally declines as attendees decrease, this does not occur at a uniform rate as demonstrated in the ratio figures in Table 3.2c. The two important exceptions are musicals and jazz. Whereas musicals have the largest audience of the six art forms studied, the ratio of performers to attendees is nearly half the ratio for the jazz audience which has the highest performer-to-attendee ratio in the table.

In sum, comparison of the estimates of arts participation reveals differing patterns in attendance and performance forms of participation. Musicals have a relatively high level of attendees and performers, but only an intermediate ratio of performers to attendees. Classical music has a high level of performers, an intermediate level of attendees, and a moderately high ratio of performers to attendees. Plays have a moderately high level of performers and ratio of performers to attendees and an intermediate level of attendees. Jazz has a moderately high level of performers, a low intermediate level of attendees, and the highest ratio of performers to attendees. Finally, ballet and opera have low levels of both performers and attendees as well as the lowest ratios of performers to attendees. These figures suggest jazz to be the most "accessible" art form to the public in terms of public performance, with ballet and opera being least accessible.

Table 3.2a: Weighted Participation Rate Estimates for Arts Activities During the Past Year

	Percentage Attending	Estimated U.S.* Population	Error Factor**
Reading	56.9%	93 million	+/-1.04
Art Museums	22.1%	36 million	+/-1.14%
Musicals	18.6%	30 million	+/- .79%
Classical Music	13.0%	21 million	+/- .76%
Plays	11.9%	20 million	+/- .61%
Jazz	9.6%	16 million	+/- .62%
Ballet	4.2%	7 million	+/- .37%
Opera	3.0%	5 million	+/- .37%

* Percentage x 164 million

** The error factor is at 95% confidence and takes design effects into account.

Table 3.2b: Weighted Population Estimates for Appearing in Public Arts-Related Performances

	Previous Year	Estimated U.S.* Population (in thousands)	Error Factor**
Classical Music	.9%	1,476	+/-.11%
Musicals	.9%	1,468	+/-.11%
Jazz	.8%	1,281	+/-.11%
Plays	.8%	1,270	+/-.07%
Ballet	.1%	207	+/-.03%
Opera	.1%	134	+/-.05%

* Percentage x 164 million

** The error factor is at 95% confidence and takes design effects into account.

Table 3.2c: Ratio of Performers to Attendees Based on Population Estimates (in thousands)

	Musicals	Classical Music	Plays	Jazz	Ballet	Opera
Performers	1,468	1,476	1,270	1,281	207	134
Attendees	30,664	21,398	19,579	15,815	6,901	4,996
Ratio of Performers to Attendees	.048	.069	.065	.081	.030	.027

3) ARTS PARTICIPATION AND BACKGROUND FACTORS

The 1982 survey of arts participation allows examination of arts participation by a variety of measured background variables. The larger survey included questions on the following background variables:

A. Geography
   1. Urban
   2. Rural
   3. Population Size of Place
   4. Standard Metropolitan Statistical Areas (SMSA)
   5. State
   6. County

B. Demography
   1. Race
   2. National Origin
   3. Age
   4. Marital Status
   5. Relationship in Household
   6. Gender
   7. Education
   8. Household Income
   9. Number of Children

C. Housing
   1. Type of Unit
   2. Access to Automobile
   3. Kitchen Facilities
   4. Telephone
   5. Number of Units
   6. Year Built
   7. Tenure of Living Quarters
   8. Length of Time at Address
   9. Number of Moves in the Last Five Years

D. Occupation and Employment
   1. Employment Status
   2. Reason for Unemployment
   3. Extent of Job Search Efforts
   4. Occupation
   5. Type of Employing Organization

The analyses in this chapter, however, are limited to eleven background variables (in this list and in figures that follow): age, gender, race, education, income, SMSA, region, marital status, work hours, occupation, and number of children. These variables were selected to represent the most salient dimensions of geography, demography, and occupation. Variables related to housing and to origin are examined in Chapter 4.

In the following analyses of background variables and their impact on arts participation, it is important to distinguish between the usefulness of these variables in predicting participation, and their usefulness in explaining that same participation. An understanding of that distinction will help the reader decide whether to devote more of his attention to the unadjusted data or the adjusted data, depending on his needs and interests.

If a factor is a useful predictor of arts participation, then it efficiently characterizes groups of people who are more likely to participate than other groups. At face value, this knowledge serves to predict attendance, although the factor cannot be said to cause the different rates of participation, and might only succeed as a predictor because of its association with other related factors which have a more direct or stronger influence on participation behavior. For readers interested in efficient prediction of arts participation, without examining the underlying and perhaps more complex relationship between background factors and participation, the unadjusted statistics in this chapter will provide the needed information.

However, for those readers interested in explaining why participation differs across groups of people with different background characteristics, it is necessary to analyze the web of influences on arts participation and identify factors with the greatest explanatory power. The adjusted statistics in this chapter, which separate out a given background factor's explanatory power from all other factors studied, will be more informative to readers attempting to explain arts participation behavior.

Table 3.3 Participation Rates for Various Arts Activities by Background Factors

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Reading
Grand mean:	9.6%	13.0%	3.0%	18.6%	11.9%	4.2%	22.1%	56.4%
Age:								
18-24	17.5	11.0	2.0	16.6	10.7	3.9	22.7	59.8
25-34	14.5	13.0	2.6	19.8	12.2	4.8	26.5	62.1
35-44	7.8	16.4	3.6	23.1	15.3	6.0	27.1	59.6
45-54	7.0	14.8	3.9	21.3	13.4	3.7	22.0	54.9
55-64	4.9	12.8	3.5	18.7	11.5	3.7	18.9	52.9
65-74	2.0	12.1	3.4	13.9	9.9	3.0	14.6	47.3
75-96	1.4	7.1	2.0	8.9	5.2	1.6	8.3	40.8
Sex:								
Male	10.3	11.3	2.7	16.6	10.7	2.7	21.0	48.9
Female	9.0	14.5	3.3	20.5	12.9	5.5	23.1	63.0
Race:								
White	8.9	13.9	3.2	19.7	12.7	4.5	23.2	58.3
Black	15.4	6.7	1.3	10.0	5.8	1.8	12.4	42.0
Other	8.5	9.5	3.1	13.2	8.0	3.5	27.4	50.1
Education:								
Grade school	1.4	1.9	0.5	4.2	1.7	0.4	2.7	21.0
Some high school	4.1	3.9	0.5	6.1	3.5	0.8	7.2	39.0
High school graduate	6.8	7.6	1.9	13.3	7.0	2.4	16.1	54.2
Some college	14.9	17.9	3.8	26.1	16.4	5.9	32.5	73.1
College graduate	19.2	29.4	6.6	37.4	25.9	9.7	44.1	79.9
Graduate school	19.6	38.5	10.2	44.9	36.3	13.2	55.9	85.1
Income:								
Under $5,000	7.8	8.5	0.7	9.5	7.2	2.5	12.1	39.8
$5,000 - $9,999	7.5	8.1	1.8	9.2	5.5	2.0	13.0	45.6
$10,000 - $14,999	8.1	9.5	1.9	13.2	8.1	3.6	18.2	53.2
$15,000 - $24,999	9.2	11.1	2.0	17.2	10.3	3.5	20.9	56.2
$25,000 - $49,999	11.8	18.3	4.4	28.0	17.9	6.2	30.7	67.4
$50,000 and over	16.8	30.6	10.4	43.7	33.8	10.4	47.5	77.5
Not ascertained	9.9	13.8	3.9	18.6	10.7	4.5	22.4	56.9
SMSA:								
Cent city of SMSA	12.6	14.7	3.9	21.2	14.1	5.6	25.6	56.5
SMSA, not cent city	10.5	14.3	3.7	22.2	13.2	5.0	24.7	60.3
Not in SMSA	6.0	10.1	1.4	12.3	8.5	2.1	15.9	51.8
Region:								
Northeast	8.9	13.8	3.6	22.9	13.9	5.4	22.2	58.5
Northcentral	10.1	14.2	2.9	18.4	12.1	3.6	21.4	58.4
South	8.6	10.0	2.5	13.8	9.2	3.5	18.5	49.1
West	11.5	15.6	3.7	22.5	14.0	5.1	28.9	63.9
Marital Status:								
Married	6.8	12.2	2.6	18.5	11.4	3.6	21.3	55.7
Widowed	2.4	10.7	3.3	13.4	7.6	3.0	11.7	47.8
Divorced	14.8	17.8	3.5	20.8	14.5	6.1	26.5	60.7
Separated	12.6	9.9	2.4	14.9	9.9	3.3	17.9	47.0
Never Married	19.0	15.2	4.2	20.8	14.5	6.0	27.6	61.6
Work Hours:								
None	7.2	11.6	2.6	15.7	10.1	3.5	18.7	54.6
1 to 29	11.8	16.1	3.2	23.2	15.2	5.2	28.6	64.7
30 to 39	11.6	14.7	4.3	21.2	13.2	5.6	25.8	62.4
40 hrs	10.5	12.5	2.8	18.7	12.3	4.3	22.3	55.1
41 to 49	11.6	14.3	3.5	19.8	11.0	4.3	23.9	57.4
50 or more	12.1	14.6	3.7	22.6	14.2	4.7	24.9	54.3
Occupation:								
Professional	18.0	30.0	7.9	37.2	27.4	9.9	45.1	78.5
Managerial	14.2	19.3	5.6	31.9	19.8	6.6	36.0	66.2
Sales,clerical	12.4	14.9	2.9	24.7	14.8	5.8	25.8	68.3
Craftsman	8.3	6.7	1.4	11.6	5.7	1.7	15.6	41.8
Operatives	6.6	4.3	0.6	7.0	4.0	1.1	9.6	37.9
Laborers	8.0	5.7	0.8	7.2	5.0	1.5	12.7	40.1
Service workers	9.7	11.3	2.8	16.8	8.9	4.1	20.1	60.2
Not working	10.3	11.9	2.6	15.5	10.5	3.5	20.6	54.0
Keeping house	4.5	10.9	2.2	14.8	8.4	3.2	16.4	54.2
Student	25.3	18.3	3.8	24.0	22.0	7.2	35.9	79.2
Retired	2.2	9.0	3.1	14.3	9.3	2.2	12.8	43.5
Presence of Children:								
No children	10.2	13.8	3.5	19.4	12.7	4.3	22.7	56.5
One 6-11	7.3	12.4	2.7	19.6	10.9	4.4	22.8	57.5
Two + 6-11	8.3	14.5	2.7	18.1	11.7	6.5	21.2	58.2
One under 6	10.2	9.0	1.2	16.1	9.9	2.7	18.9	55.3
One 6-11, One under 6	6.1	10.0	1.3	14.7	8.1	4.6	22.6	56.1
One under 6, Two+ 6-11	7.7	9.9	1.7	10.3	7.0	1.6	18.9	56.0
Two+ under 6	8.8	8.7	1.4	15.7	7.7	3.4	18.1	55.6
One 6-11, Two+ under 6	8.9	13.9	2.1	19.7	15.0	4.5	18.5	55.5
Two + 6-11, Two+ under 6	4.3	9.8	3.1	10.3	6.3	2.2	23.6	44.9

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The following analyses of background factors are organized into two parts. The first part examines each of 11 demographic factors to see how they affect participation rates across eight different arts activities. The second part examines each of the eight arts activities to see which background factors predict attendance within each arts activity, using both unadjusted and adjusted data.

Across different arts activities, some background factors are generally useful predictors of participation. These patterns can be seen by reading across rows of Tables 3.3 and 3.4, which present respectively the adjusted and unadjusted figures for participation rates by background factors. (Discussion of the adjusted figures will be postponed until the second part of the background factor analyses within art activities.) The general impact of each of eleven background factors on participation in various arts activities is summarized below.

Table 3.4: MCA-Adjusted Participation Rates for Various Arts Activities by Background Factors

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Reading
Grand mean:	9.6%	13.0%	3.0%	18.6%	11.9%	4.2%	22.1%	56.4%
Age:								
18-24	15.2	10.1	1.0	16.0	9.5	3.0	21.3	56.3
25-34	13.9	9.9	1.9	17.0	9.6	3.7	22.9	57.1
35-44	7.7	14.1	3.3	20.6	13.4	5.3	24.2	55.9
45-54	7.2	15.6	4.3	21.3	13.7	4.2	22.1	56.1
55-64	6.0	15.5	4.5	21.2	13.8	5.0	21.8	57.4
65-74	4.4	16.9	4.9	19.0	14.4	5.0	21.1	56.0
75-96	4.1	12.6	3.4	14.8	10.6	3.5	16.7	53.5
Sex:								
Male	9.5	10.2	2.2	15.0	9.3	1.9	19.4	48.2
Female	9.7	15.5	3.7	21.8	14.0	6.3	24.5	63.6
Race:								
White	9.0	13.6	3.2	19.4	12.5	4.5	22.9	57.6
Black	15.7	9.5	2.0	14.5	8.5	2.3	16.3	49.2
Other	4.4	5.2	1.9	7.5	3.7	1.3	20.4	42.9
Education:								
Grade school	5.6	2.0	0.4	7.9	3.4	1.4	6.9	24.8
Some high school	5.7	4.4	0.9	9.1	5.2	1.4	9.1	38.9
High school graduate	6.8	8.0	2.2	13.8	7.5	2.4	16.4	54.1
Some college	12.6	17.8	3.9	24.7	15.6	5.5	30.0	70.5
College graduate	17.4	28.6	6.0	34.0	23.9	9.1	41.4	77.6
Graduate school	18.3	36.5	8.9	40.0	33.0	12.4	50.8	83.0
Income:								
Under $5,000	9.2	12.6	1.2	16.1	10.8	4.0	19.6	50.0
$5,000 - $9,999	9.7	11.8	2.4	14.4	8.7	3.4	19.7	53.9
$10,000 - $14,999	8.9	11.7	2.4	15.6	9.8	4.4	20.3	56.3
$15,000 - $24,999	9.3	11.7	2.3	17.6	11.0	3.8	21.1	55.6
$25,000 - $49,999	9.9	14.4	3.7	22.8	14.5	4.9	24.6	60.0
$50,000 and over	13.0	20.6	8.3	32.8	25.6	7.4	34.0	63.9
Not ascertained	9.1	14.1	4.6	19.4	11.4	4.8	22.3	56.7
SMSA:								
Cent city of SMSA	11.4	15.0	3.9	22.0	14.5	5.7	26.2	57.5
SMSA, not cent city	9.9	12.5	3.3	19.4	11.2	4.4	21.8	56.4
Not in SMSA	7.8	12.0	2.0	15.0	10.6	2.8	19.1	55.5
Region:								
Northeast	8.9	13.1	3.2	21.8	13.3	5.0	21.4	57.7
Northcentral	10.4	14.6	3.0	18.7	12.4	3.8	21.8	58.1
South	9.2	11.4	3.1	16.2	10.7	4.2	20.8	52.3
West	10.1	13.4	2.8	19.3	12.1	4.1	25.5	59.9
Marital Status:								
Married	8.0	11.7	2.3	17.6	10.8	3.4	21.2	55.6
Widowed	9.2	13.8	3.6	20.4	11.5	4.1	21.3	58.9
Divorced	14.9	17.3	3.2	20.2	14.3	5.4	25.8	60.0
Separated	12.3	13.5	3.3	19.5	13.6	4.0	23.1	54.1
Never married	12.7	15.4	5.1	20.6	14.4	6.3	24.0	57.1
Work Hours:								
None	11.6	16.8	3.8	22.8	13.9	5.2	27.4	63.1
1 to 29	8.7	11.9	2.3	18.1	12.4	3.3	22.7	55.5
30 to 39	8.7	10.9	3.4	15.7	10.4	3.8	19.8	54.2
40 hrs	7.2	8.9	2.0	13.4	9.6	3.1	15.9	48.8
41 to 49	8.0	10.7	2.7	14.5	8.2	3.2	16.9	51.6
50 or more	9.9	11.7	2.9	19.0	11.8	4.3	19.5	52.6
Occupation:								
Professional	12.7	19.6	5.4	25.5	16.7	6.0	30.4	64.8
Managerial	12.6	15.6	4.6	26.4	15.3	5.6	30.2	62.0
Sales,clerical	11.4	15.6	3.0	24.0	14.2	5.2	25.0	63.4
Craftsman	10.8	14.9	3.6	19.7	11.5	5.4	24.5	55.3
Operatives	9.3	13.8	3.0	17.3	11.3	4.6	21.2	53.3
Laborers	9.9	14.2	3.1	17.1	11.5	5.0	23.5	55.7
Service workers	8.9	15.1	3.7	20.5	11.2	4.8	23.3	62.8
Not working	8.3	10.5	2.4	14.3	10.4	3.3	18.7	52.3
Keeping house	7.1	8.4	1.5	12.5	8.0	1.7	15.8	49.0
Student	13.1	11.7	2.5	17.2	17.4	4.5	23.3	65.3
Retired	7.2	9.2	2.8	18.1	11.9	4.1	16.9	53.0
Presence of Children:								
No children	10.7	13.3	3.1	19.2	12.3	4.1	23.2	57.2
One 6-11	8.2	12.7	3.1	18.6	10.8	4.4	21.7	56.7
Two + 6-11	8.4	15.2	3.4	17.5	11.9	6.7	19.7	57.2
One under 6	6.7	10.5	2.4	16.9	11.2	3.1	17.0	52.2
One 6-11, One under 6	4.4	12.1	2.6	15.9	9.9	5.3	21.4	53.7
One under 6, Two+ 6-11	7.3	13.1	3.3	12.8	9.6	2.6	19.4	56.9
Two+ under 6	5.8	10.1	2.8	16.4	9.0	4.2	15.6	52.0
One 6-11, Two+ under 6	7.8	16.8	3.5	21.8	17.5	5.3	18.1	55.4
Two + 6-11, Two+ under 6	3.0	12.5	4.4	12.7	8.4	3.3	23.9	46.8

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4) BACKGROUND VARIABLES: DIFFERENCES IN PARTICIPATION RATES BEFORE ADJUSTMENT

For any of these background factors, an indicator of its usefulness is the range of variation, the difference between the highest and lowest participation rates of individuals who differ in this background characteristic. When this range is large, the factor can be used to predict greater differences in the likelihood of arts participation. Conversely, when the range is small, the factor is less useful in distinguishing groups of high and low attendees. (The range of variation across the arts activities can be gauged in Table 3.3 or Table 3.4 by subtracting the maximum and minimum participation rates for each background factor and then comparing the variations down the columns of arts activities.)

Although the most important factors associated with participation show some fluctuation across arts activities, some trends can be discerned. Generally, education, occupation, and income are respectively the first, second, and third best predictors.

Age

Arts participation declines among the older segments of the population, but the watershed point for this decline varies across activities. Opera attendance has the oldest peak point (45-54 years); the peak point for attendance of classical music, musicals, plays, ballet, and art museums is the next younger group (35-44 years); the peak point for those reading literature is younger still (25-34); while jazz attendance has the youngest mode (18-24). Thus, the audiences of the various arts activities are drawn in varying degrees from different age groups, although least likely from the oldest groups in the population.

Gender

Females have a higher participation rate than males for most arts activities: attending live performances of classical music, opera, musical and non-musical plays, and ballet; visiting art museums or galleries; and reading literature. The one exception is attending jazz performances--males are noticeably more likely than females to attend jazz performances.

Race

The most common pattern by race is that whites tend to have the highest participation rate, blacks the lowest rate, and "other" races an intermediate rate. This holds for attendance of classical music, musicals, plays, and ballet, as well as for reading literature. However, "other" races attend opera at a level almost equal that of whites, and report a higher rate for visiting art galleries and museums. Jazz attendance is the one type of live performance for which blacks' rate is the highest (or above the national average); whites and "other" races have roughly equal rates of attending jazz performances.

Education

For each art activity, participation rates (attendance and reading) increase markedly with educational levels. Except for ballet attendance, the point at which the population average rate for the sample is exceeded occurs among those with some college education.

Income

Household income is positively related to arts attendance and reading literature. The minor qualification is that for attending some live performances (jazz, classical music, musicals, plays, and ballet) those earning below $5,000 are a little more likely to attend than are those earning $5,000-$9,999.

Standard Metropolitan Statistical Area (SMSA)

The typical pattern in this case is for residents of central cities within SMSA's to have the highest rates, for residents of SMSA's outside of central cities to have slightly lower rates, and for those outside of SMSA's to have the lowest rates. In two cases (attendance of musicals and reading literature), the participation rates of those living in an SMSA, but outside of the central city, are the highest.

Region

People residing in the South have the lowest participation rates for all of the arts activities, while those living in the West typically have the highest participation rates. Participation rates in most cases tend to be relatively high in the Northeast (jazz performances are the exception). The participation rates for those in the Northcentral area tend to be intermediate relative to the other regions, but relatively high for jazz and classical music and low for ballet.

Marital Status

The divorced and never married are more likely than average to attend any of the art events and to read literature. Married, widowed, and separated respondents attend and read at less than average rates, two exceptions being that separated individuals attend jazz performances at a rate greater than average, and widowed people attend the opera at a greater than average rate.

Work Hours

Those not working attend all art forms and read literature at rates below average; part-time workers participate consistently at rates above average. Those working 40 hours attend jazz performances, musicals, plays, ballet, and art displays at slightly above average rates, other arts activities at slightly below average. Those who work more than 40 hours a week generally participate in most arts events at greater than average rates. (There are a few exceptions to this, for example, attending non-musical stage plays for those who work 41-49 hours.)

Occupation

Professionals, managers, and students and to a lesser extent sales-clerical personnel -- are more likely than average to participate in arts activities. Other types of workers only rarely exceed the average participation rate for any of the art forms. Exceptions include service workers for attending jazz performances and reading literature, those not employed in attending jazz performances, and the retired in attending opera.

Presence of Children

Individuals with fewer child care responsibilities consistently have participation rates slightly greater than average. Parents with younger children generally show participation rates below the average. Parents with older children are both above and below the average for different art forms.

Relative Differences After Adjustment

The second part of our analysis identifies the most important predictors of participation for each art form after the adjustment for other factors described in detail in Chapter 2. The unadjusted associations serve to predict the likelihood of participation among different groups categorized by a single background variable (e.g., age, or education), without taking into account all the other background factors. On the other hand, the adjusted figures show the association between participation and each background factor, when all the other background variables are controlled. This latter procedure isolates the effect of each variable, thus aiding explanation, rather than simple prediction, of participation rates. For example, the differences or "effect" of income may be partially due to the association between income and education; the adjusted figures show the net effect of income when education effects are removed.

When compared to the unadjusted figures, the adjusted figures will be higher, lower, or show no significant change. If the adjusted figure shows higher attendance, then the actual attendance rate (the unadjusted figure) has been suppressed because associated background factors are related to lower participation. In the case of gender, for example, women's participation may be suppressed by the fact that women generally have less formal education, or income, or are older than men. Once these suppression effects of education, income, age, etc. are controlled, their participation relative to men is increased.

On the other hand, if the adjusted figure is lower than the unadjusted figure, then the actual attendance rate by that factor has been inflated by the associated effects of other background factors. This was the case in

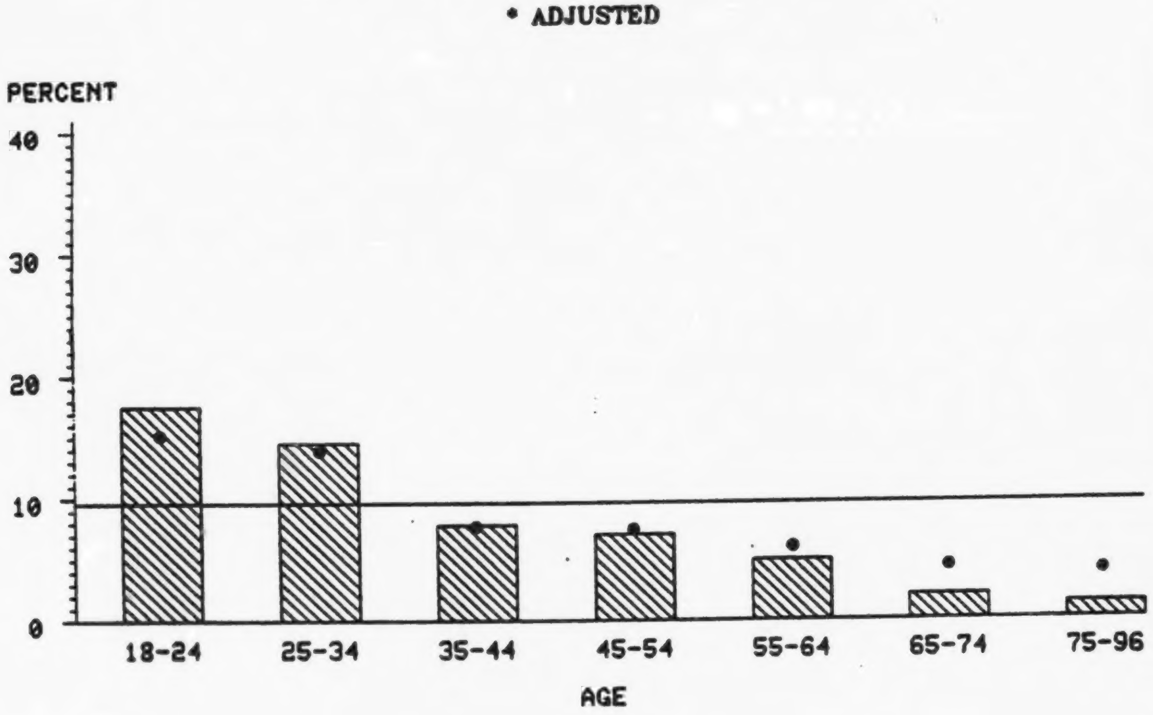
Chapter 2 when we controlled differences in attendance levels by race (and income) for differences by education. If the adjusted and the unadjusted figures are about equal, however, the background variables do not have a systematic influence on the association between the factor and participation rates. As noted in Chapter 2, this adjustment procedure isolates the effect of each variable, but does not identify which background variable(s) intervene in the association between the unadjusted variable and participation rates. It should also be noted that the adjustment or control does not extend beyond those 11 variables specifically included in Table 3.4.

The relationships between participation and each background factor are described below as well as being represented graphically. The graphs are a useful way to perceive the trends at a glance but the exact figures are better extracted from Tables 3.3 and 3.4. In the graphs which follow , the unadjusted figures are represented by bars, the adjusted figures by dots, and the national average by a horizontal line. In the accompanying text for each figure, the first paragraph summarizes unadjusted data, and the second examines the effects of isolating the influence of a given background variable from those of the 10 other factors studied.

JAZZ

The best predictors of attendance rates for jazz performances are occupation, education, marital status, and age, in that order (variations of 23.1-16.1%). After controlling for the effects of other background factors, the most important predictors are education, race, and age (variations of 12.7-11.1%).

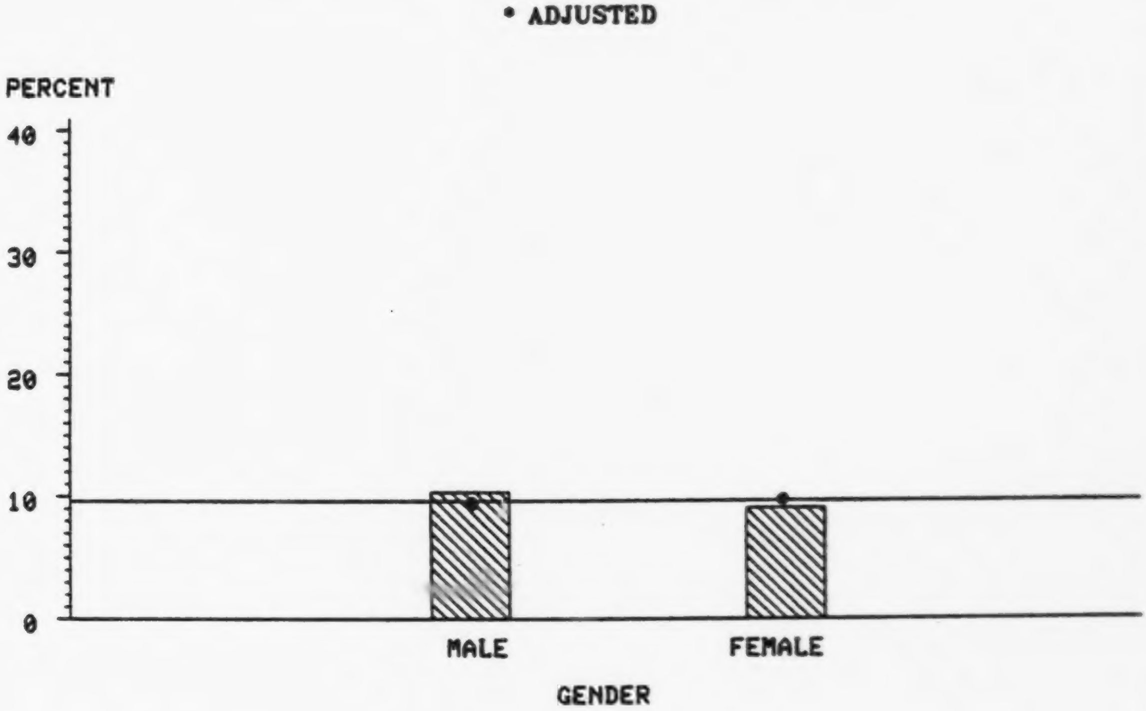
ATTEND JAZZ BY AGE



Attending jazz performances declines with age. Those aged 18-34 are at least twice as likely to attend a jazz performance as people aged 45-54, and participation continues to drop with increasing age, until among those aged 65 and over, less than 2% attend.

These age differences are reduced somewhat when other background factors are taken into account (as shown by the differences between the dots, the adjusted figures, and the bars in the graph). This is probably due to such age-related factors as education and work status. Other age-related background factors like work status and education probably tend to decrease participation by older people. Nevertheless, when these and other factors are held constant, the general trend remains the same--the attendance rates for jazz performances decline with age.

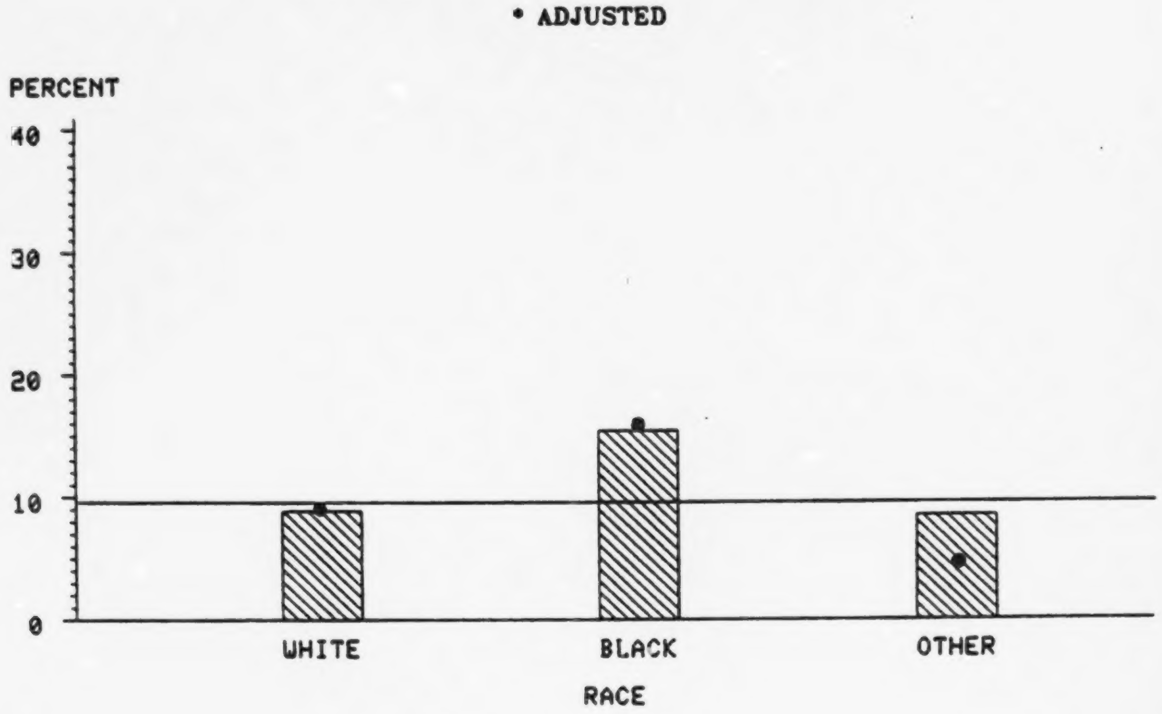
ATTEND JAZZ BY GENDER



Men are slightly more likely to report attending jazz performances than are women.

After adjustments for the impact of other background factors, these small differences almost completely disappear. Gender is not a useful factor in either predicting or explaining attendance at jazz performances.

ATTEND JAZZ BY RACE

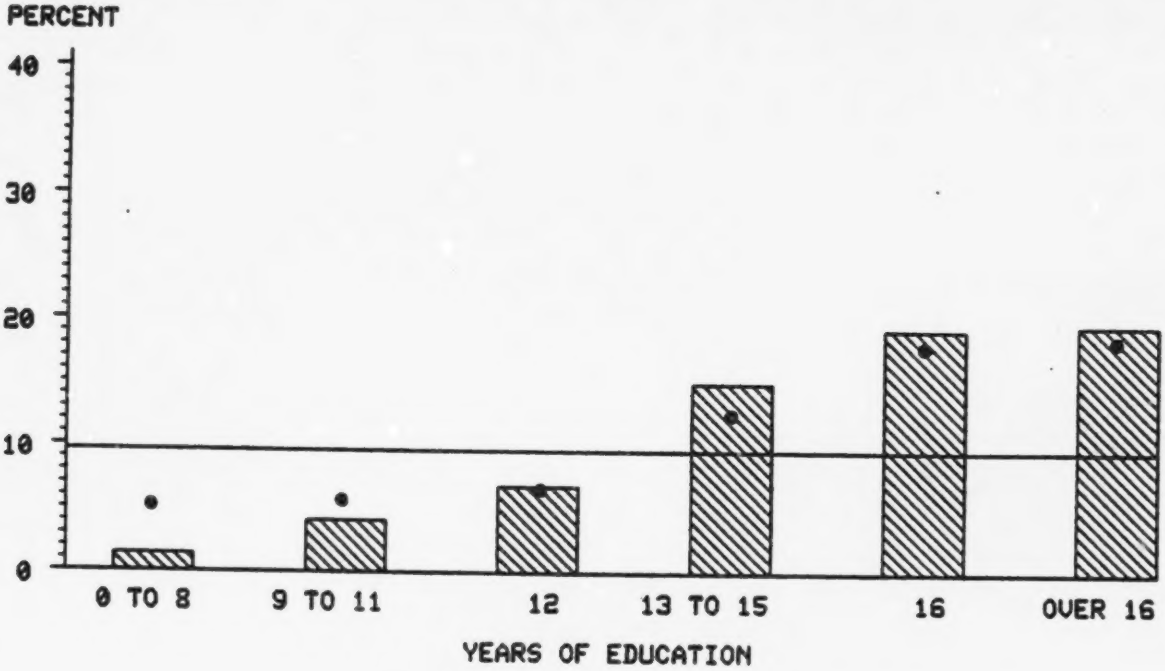


Greater jazz attendance was reported among black respondents than among either whites or respondents with "other" racial backgrounds.

Controlling for other background variables only slightly affects participation rates for blacks and whites, but the attendance rate for "other" races declined after statistical adjustment, and apparently had been inflated by related background factors. Race, in and of itself, is a useful factor in explaining attendance at jazz performances.

ATTEND JAZZ BY EDUCATION

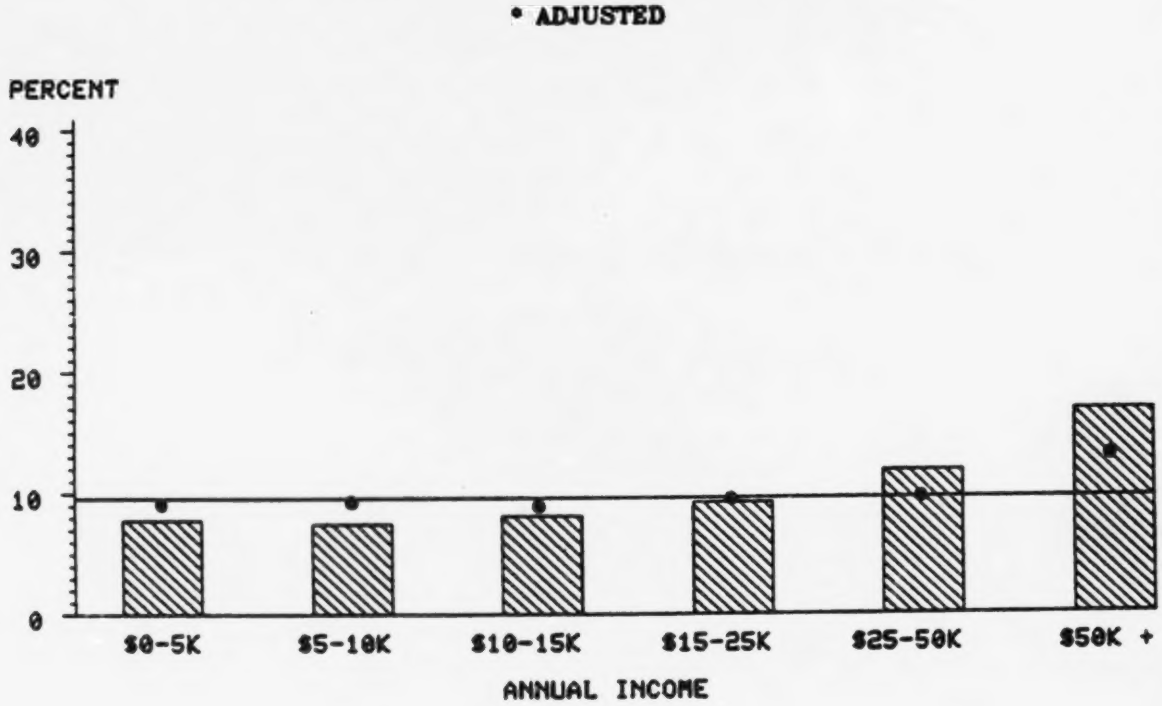
• ADJUSTED



The college educated are more likely to attend jazz performances than those with less education. Attendance of jazz performances is ten times more likely among those who attended graduate school than among those with only a grade school education.

While differences decline somewhat when other background factors are taken into consideration, especially for those with only a grade school education, the significant trend -- increasing jazz attendance with increasing education--remains strong. Education proves to be a useful factor in explaining attendance at live jazz performances.

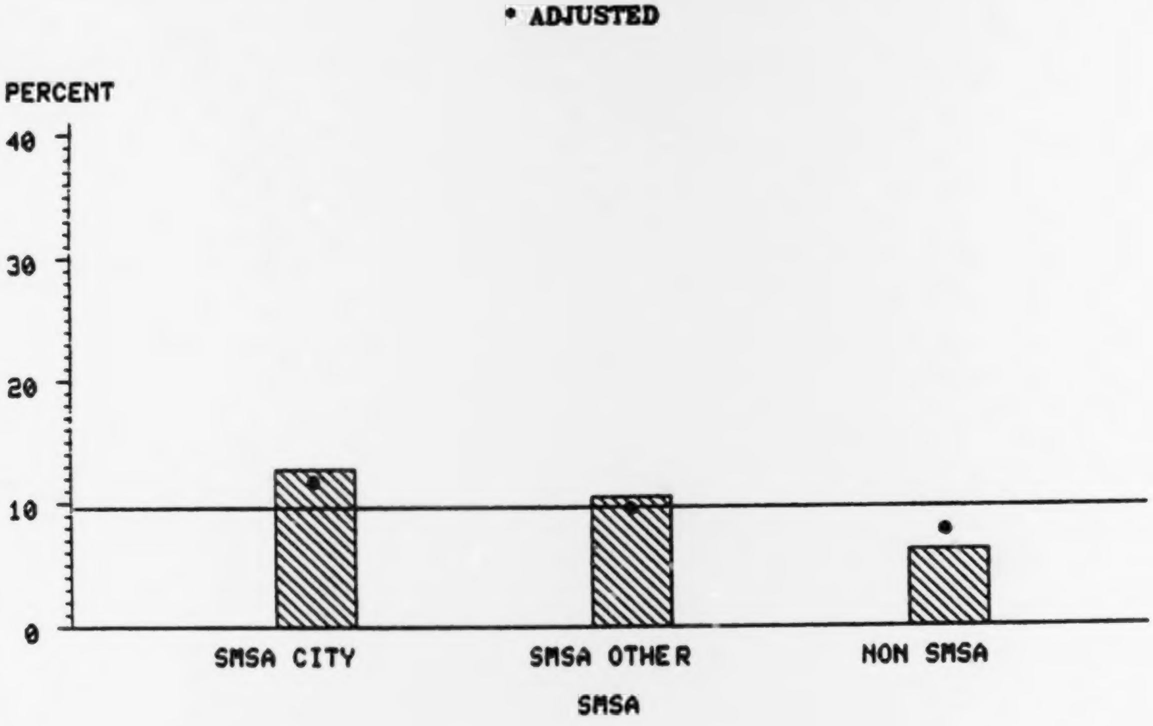
ATTEND JAZZ BY INCOME



Persons from wealthier households are somewhat more likely to attend jazz performances, but the tendency is marked only for the wealthiest income bracket.

When other factors are held constant, these modest differences are further diminished. This is probably due to the close association between income and education; when the effect of education is removed, income is a relatively weak predictor of jazz attendance (see Chapter 2), but probably helps to predict attendance because of its underlying association with educational level.

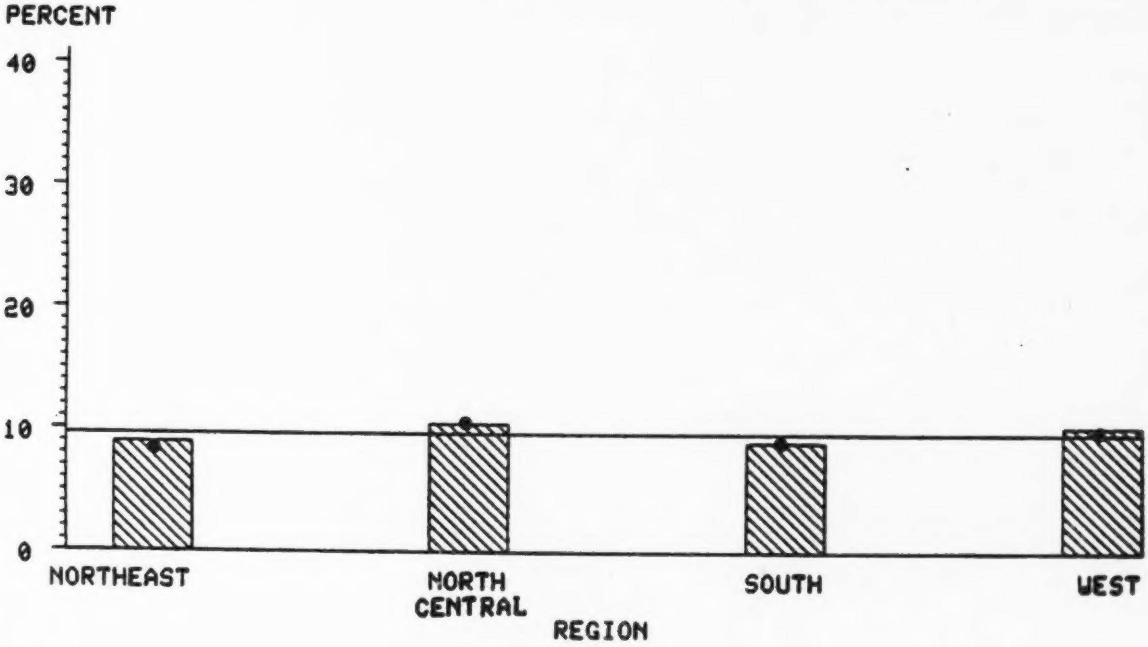
ATTEND JAZZ BY SMSA



People living in the central cities of SMSA's are slightly more likely to attend jazz performances than those living in less concentrated locations in SMSA's (such as suburbs), but are twice as likely to attend as those living outside of SMSA's.

These differences were reduced slightly after adjustment. Even when other background factors are held constant, however, SMSA residents of central cities are still somewhat more likely to attend jazz performances than those residing in SMSA's outside of central cities, who, in turn, are more likely to attend than those residing outside of SMSA's. These other background factors act to discourage attendance by non SMSA residents, while they slightly elevate attendance by people living in other locations.

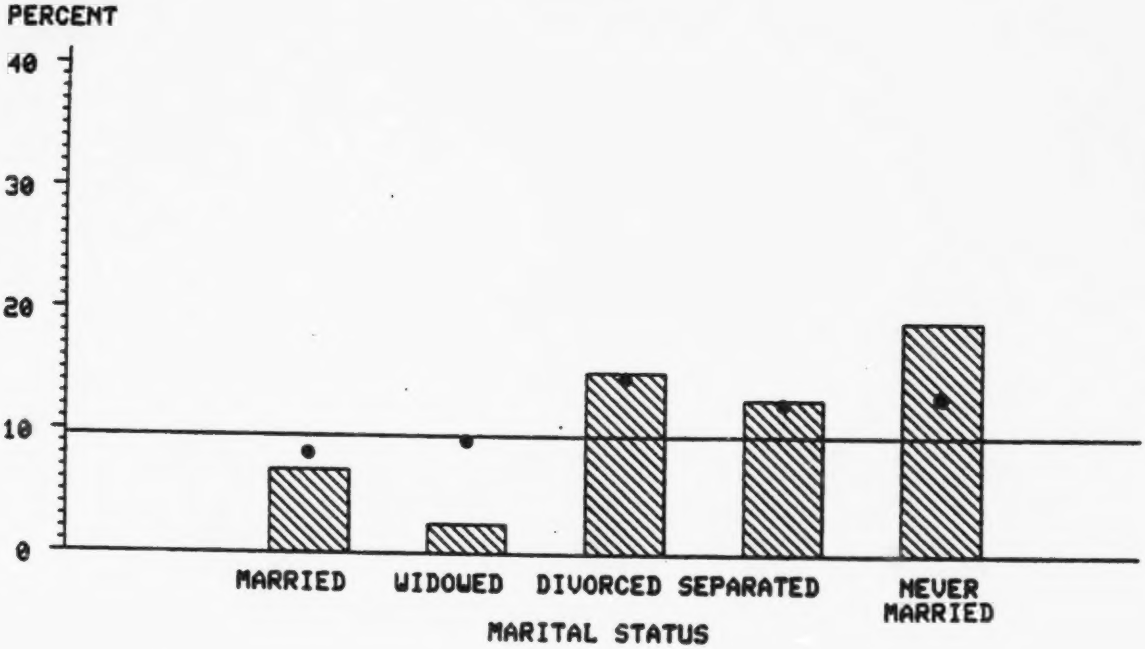
ATTEND JAZZ BY REGION



Slightly higher attendance at jazz performances was reported in the Northcentral and West than in the Northeast or South.

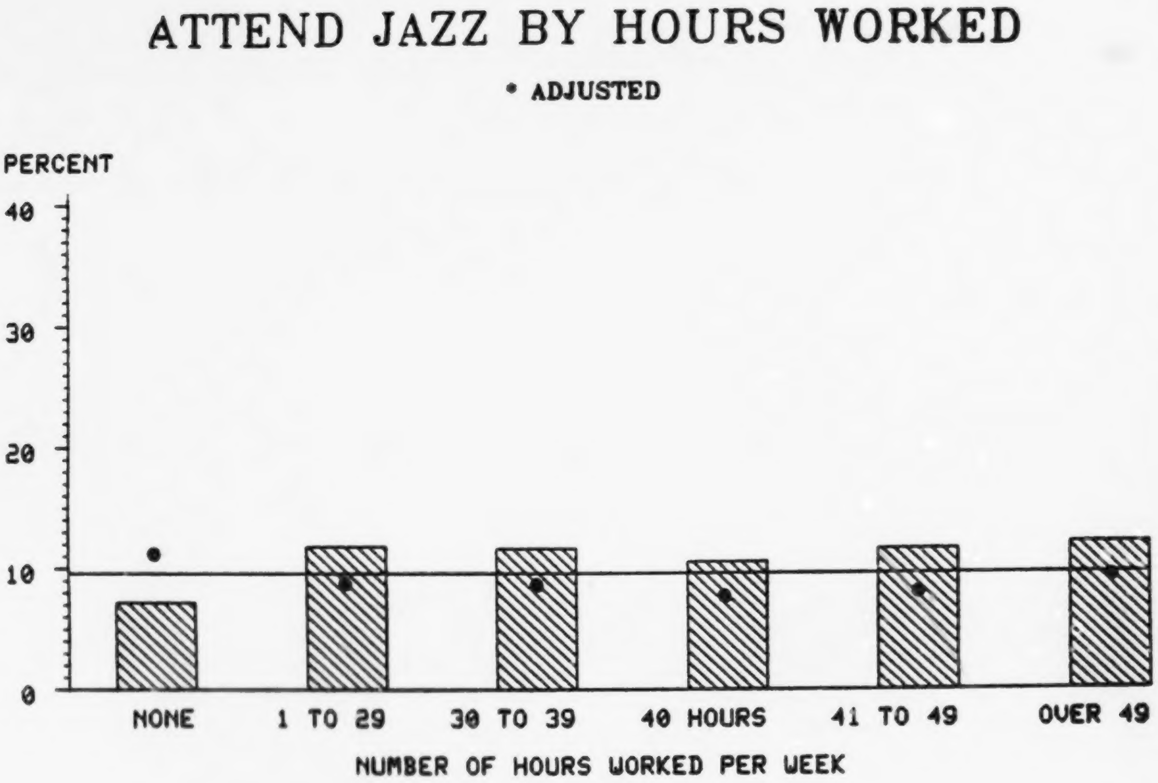
After adjustment for other factors, these regional differences lessened, with participation in the South and West approaching the national average. The adjustments made no change in the Northeast rate of attendance, but indicated that other factors had slightly suppressed Northcentral participation in the unadjusted figures.

ATTEND JAZZ BY MARITAL STATUS



Married people and especially widowed people have lower than average attendance rates for jazz performances. Those divorced and those separated have higher than average rates. Those never married are twice as likely to attend as the average person is.

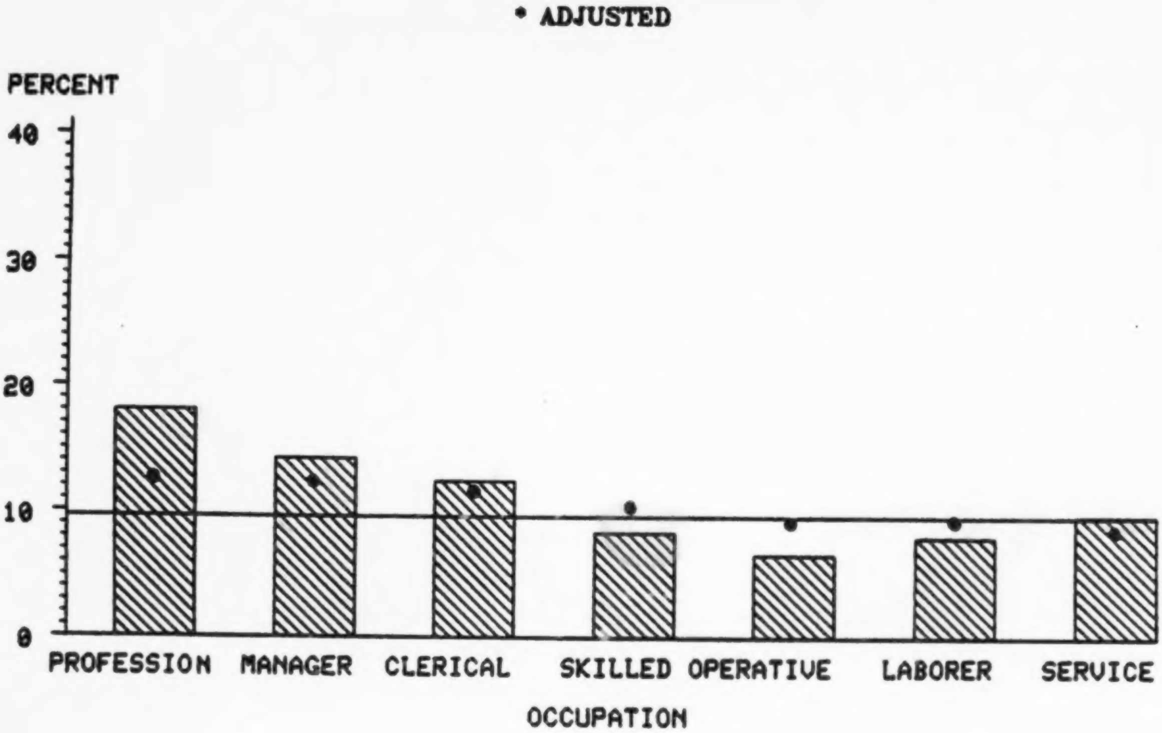
When other factors are held constant, however, the two groups with the lowest and the highest attendance rates (the widowed and the never married respectively) show much more average participation rates. One important underlying factor here might be the effect of age; the youthfulness of the jazz audience might have underrepresented attendance by widowed people and overrepresented attendance by people who never married, until a statistical control for age was applied. Still, even after such adjustments, married people and the widowed are less likely than other groups to attend jazz performances.



The "not working" group is the only category falling below the national average. The other categories of hours worked have fairly similar rates, but the 40 hours a week group has the lowest rate among employed people. The group working 50 hours or more has the highest rate of jazz attendance.

The adjusted figures show an interesting reversal--"the not working" category now is the only group above the national average and all other groups show less attendance. It may be that adjustment for race and age account for this reversal. For example, youthful blacks, who tend to be either unemployed or students, may attend jazz performances more frequently.

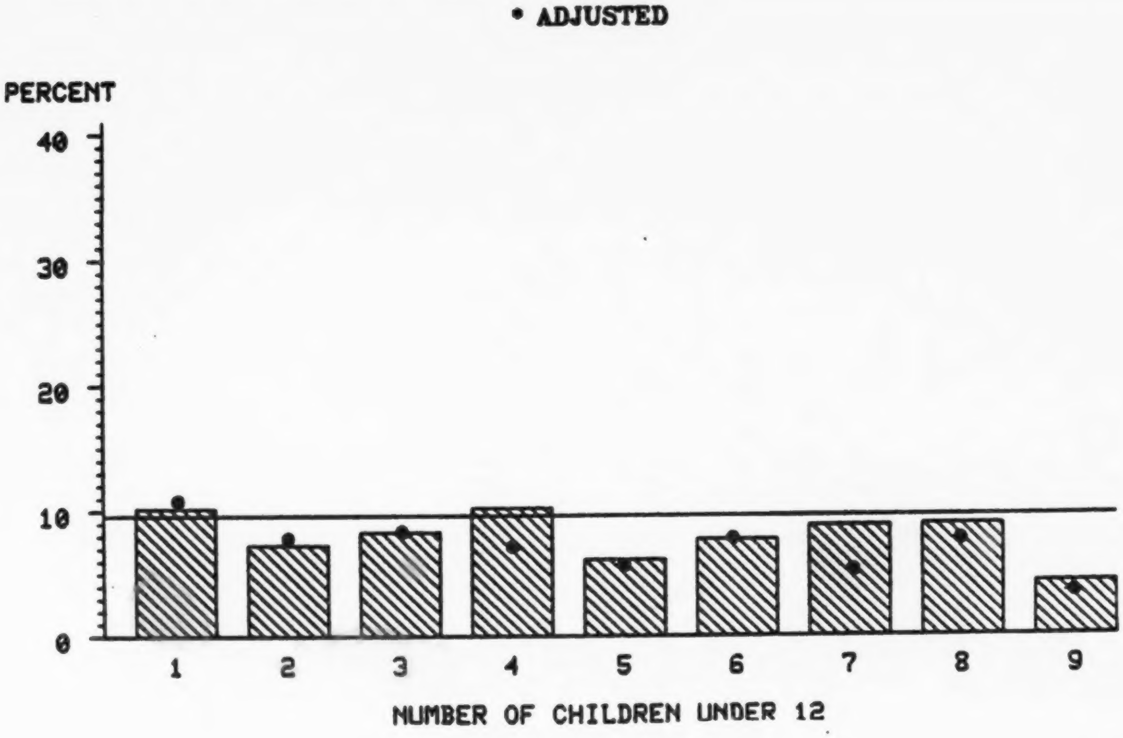
ATTEND JAZZ BY OCCUPATION



Professionals have an attendance rate about twice the national average, while operatives show below average attendance. Three other occupational categories not shown in this figure, also have unusual attendance rates. Students (25.3%) attend at nearly three times the national average, while the retired (2.2%) and housekeepers (4.5%) show exceptionally low attendance rates.

These extremes in participation rates are considerably moderated after controlling the impact of other background factors. For example, age and education might have suppressed retired participation (adjusted rate of 7.2%), while inflating student attendance (adjusted rate of 13.1%).

ATTEND JAZZ BY NUMBER OF CHILDREN



Presence of Children:
1 No children
2 One 6-11
3 Two + 6-11
4 One under 6
5 One 6-11, One under 6
6 One under 6, Two+ 6-11
7 Two+ under 6
8 One 6-11, Two+ under 6
9 Two + 6-11, Two+ under 6

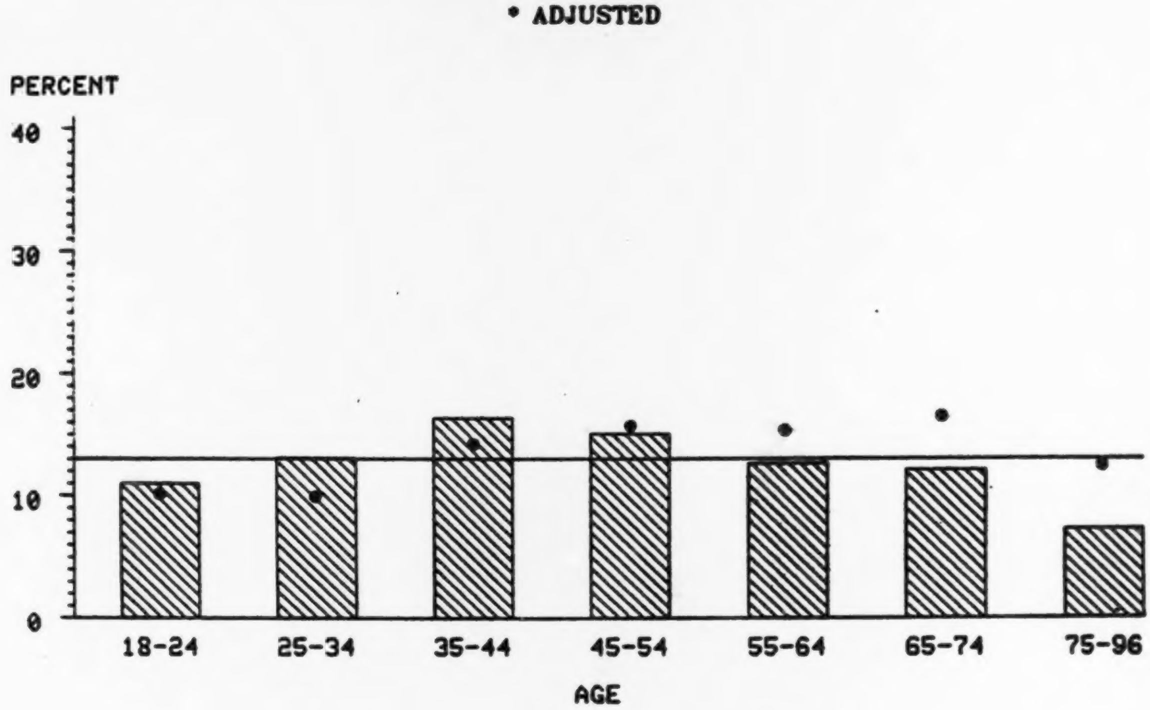
Generally, people with no children under 11 years of age are more likely to attend jazz performances than people with children of this age. One exception is those with one child less than six, who are equally as likely to attend as those with no children; both groups exceed the national average.

With other factors held constant, however, the effect of children is uniformly associated with lower than average attendance rates. Moreover, very young children appear to particularly inhibit attendance. One likely reason for the adjustment toward lower rates, particularly for those with a single child under six, is the opposing effects of age--younger people are more likely both to attend jazz performances but also to have young children who inhibit their attendance.

CLASSICAL MUSIC

Education, occupation, and income are the most important factors for predicting attendance of classical music performances (variations of 36.6-12.1%). After adjusting for other factors, education and occupation are the most important predictors for explaining attendance (variations of 34.5-11.2%).

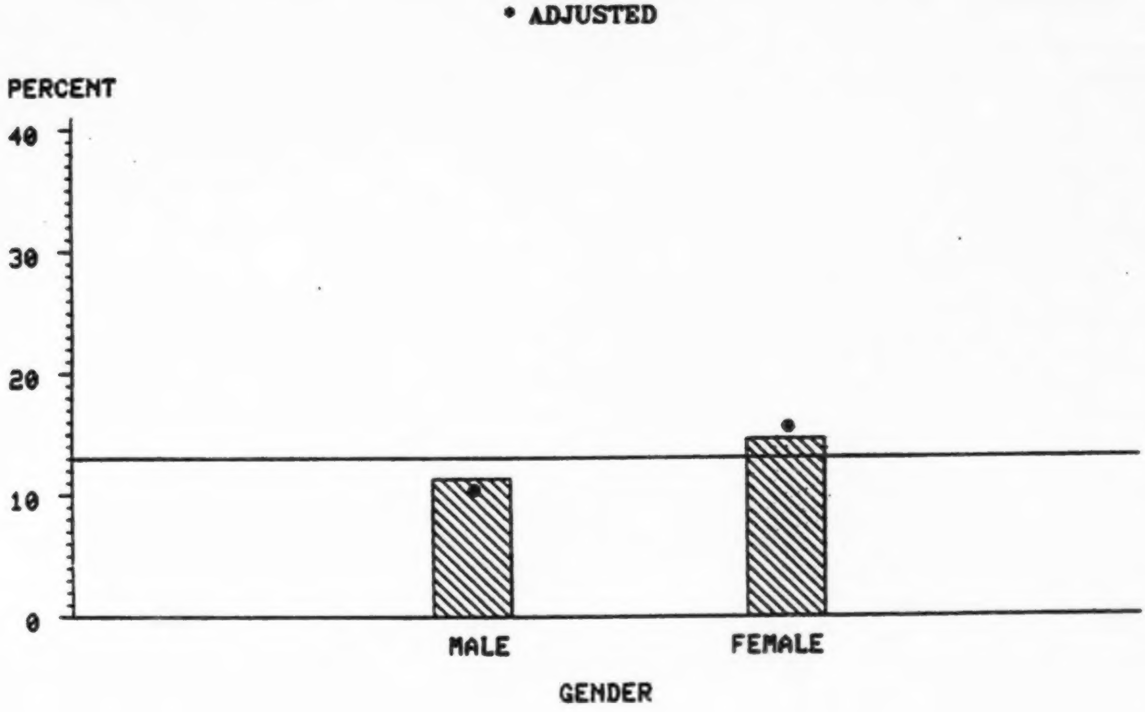
ATTEND CLASSICAL MUSIC BY AGE



The attendence rates for classical music performances rise with age until the age category of 35-44, and then steadily decline with increasing age, until the oldest group attends half as often as the 35-44 group.

After adjustment for the influence of other background factors, this curvilinear relationship of age and attendance no longer holds. Instead, attendance rates rise with age, but fall among the oldest age group. This suggests that it is the other factors associated with age (e.g., education), not age per se, which deflate attendance rates for older groups.

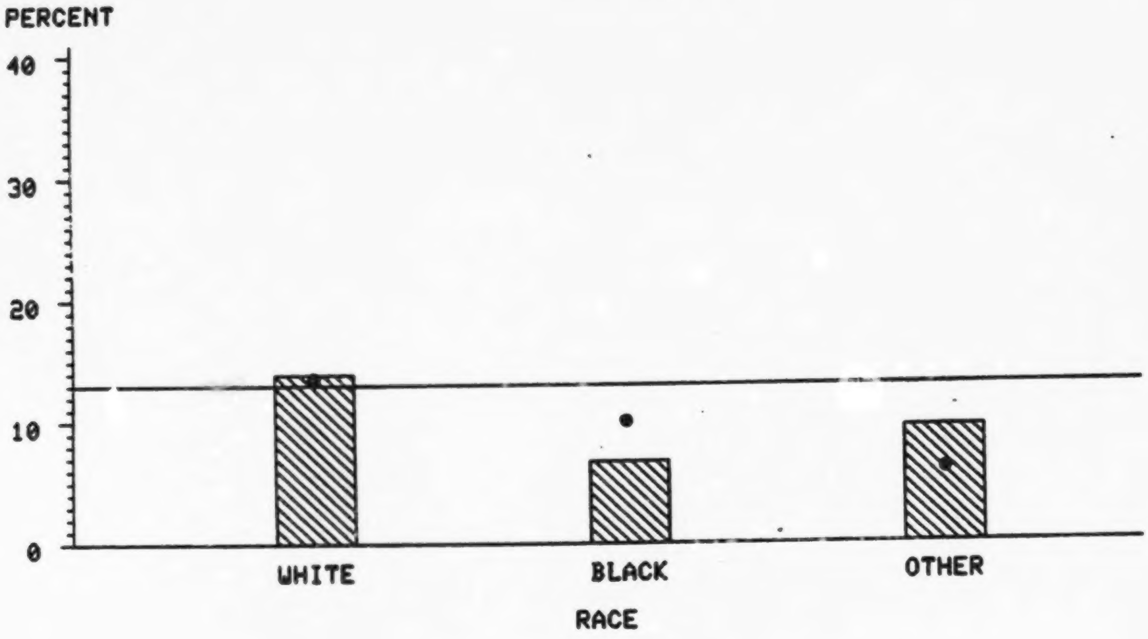
ATTEND CLASSICAL MUSIC BY GENDER



Females are more likely to attend classical music performances than are males, but the difference is not large.

When other background variables are equal, the difference is a little larger, indicating some associated factor(s) suppressed the unadjusted association between participation and gender (e.g., lower income and/or education among females). Thus, gender seems to be a moderately important explanatory factor in explaining attendance at classical music performances.

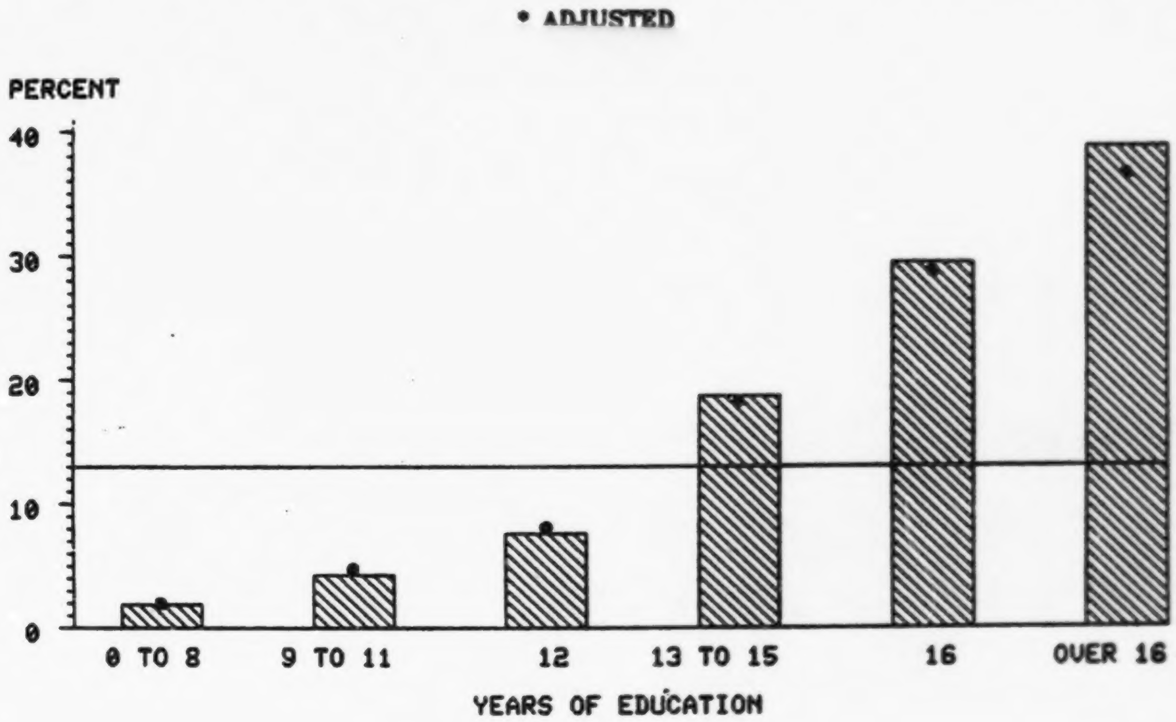
ATTEND CLASSICAL MUSIC BY RACE



Among racial groups, whites attend at a rate slightly above the national average; blacks and "other" races attend at rates somewhat below the average.

When other factors are held constant, whites' attendance rate stays essentially the same, but blacks' rate now ranks above "other" races' rate and "other" race participation drops further. In other words, background factors like education (lower among blacks) and age (lower in "other" races) suppress blacks', but inflate "other" races' attendance of classical music performances.

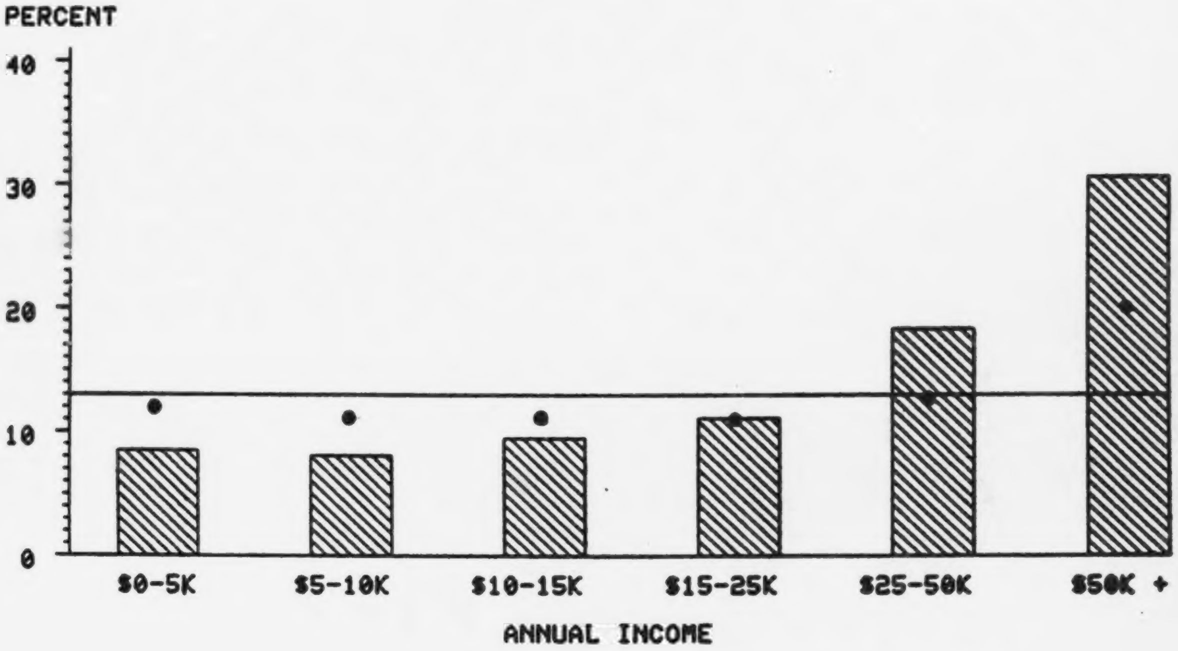
ATTEND CLASSICAL MUSIC BY EDUCATION



Attendance of classical music performances is strongly and positively associated with increased education. The watershed point is attending some college--those never taking college courses are considerably less likely to attend performances than the average person; those with at least some college are much more likely than the average to attend (up to three times as likely for those who attended graduate school).

The pattern is fundamentally unchanged after controlling for other background factors, indicating education is both an effective predictor of attendance at classical music performances and a strong explanatory variable independent of the other background factors studied.

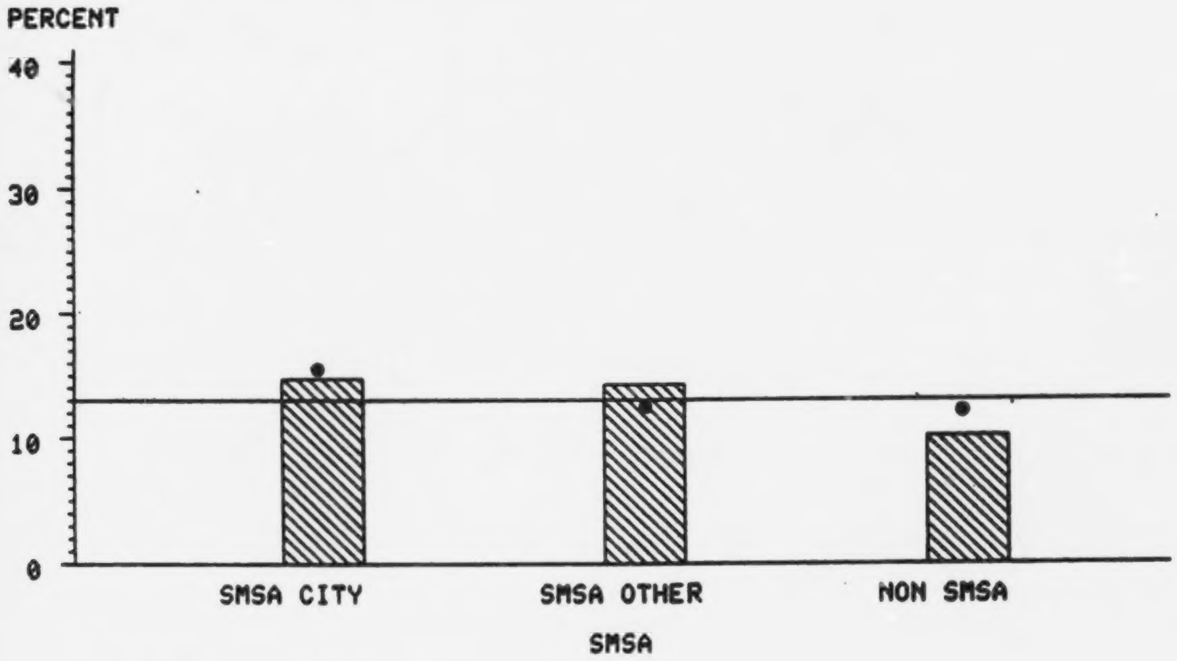
ATTEND CLASSICAL MUSIC BY INCOME



Attendance of classical music performances also rises with income levels. Starting with the category of $25,000-$49,999, the attendance rate climbs steeply above the national average.

If other background factors are held constant, however, the range of differences is considerably lessened. Attendance hardly varies among the lower income brackets, but still climbs steeply--though not as steeply as before adjustment--with the $25,000-$49,999 bracket. Thus, income explains little of the variation below the highest income brackets, once the influence of more powerful factors (like educational differences between income groups) has been removed.

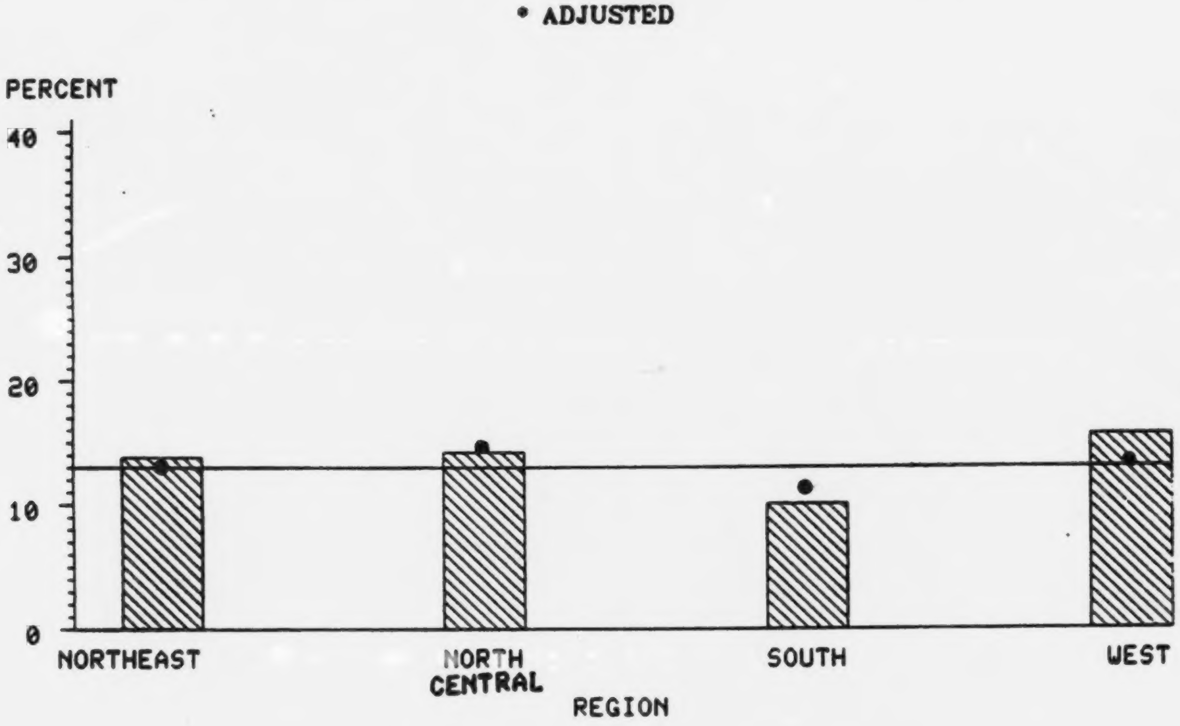
ATTEND CLASSICAL MUSIC BY SMSA



Those living in an SMSA, whether inside (SMSA city) or outside (SMSA other) of a central city, are slightly more likely to attend classical music performances than the national average; those residing outside of an SMSA are lower than average in attendance.

Controlling for other background factors affects the attendance rates of central city residents very little. For these two latter categories, then, location per se does not seem to be a primary factor that explains differences in participation rates. Probably differential (i.e., higher) education among those in the suburbs accounts for the original unadjusted rate. However, the rate of those in an SMSA outside of the central city falls just below the national average, approximating the rate of those residing outside of SMSA's.

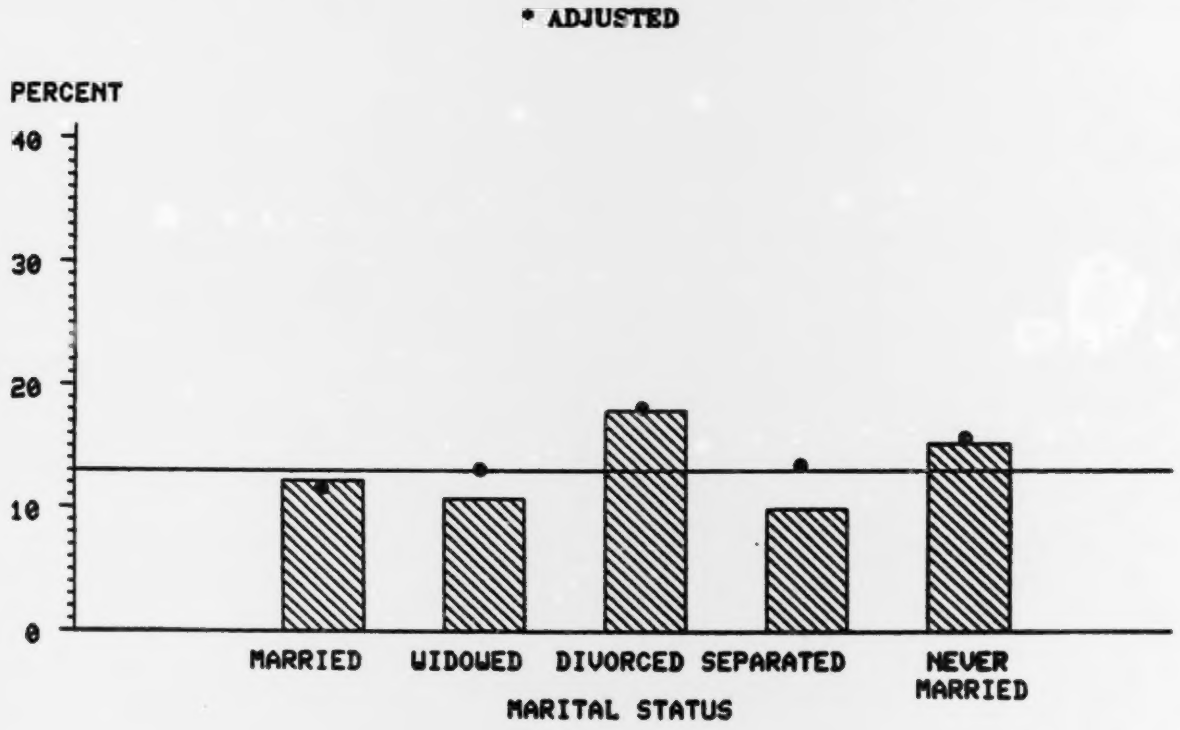
ATTEND CLASSICAL MUSIC BY REGION



People residing in the South fall below the national attendance rate for classical music performances, while those living in the West are most likely to attend, and Northeastern and Northcentral residents are slightly above the national average.

Statistical control of other background factors shows they generally inflate the actual differences in participation rates between regions. Western participation falls and Southern participation rises slightly when other factors like education are considered. The actual rate for the Northcentral regions, however, is slightly deflated by other background factors. The lower rate in the South is only partially attributable to the other background factors, since it remains below average even after these adjustments.

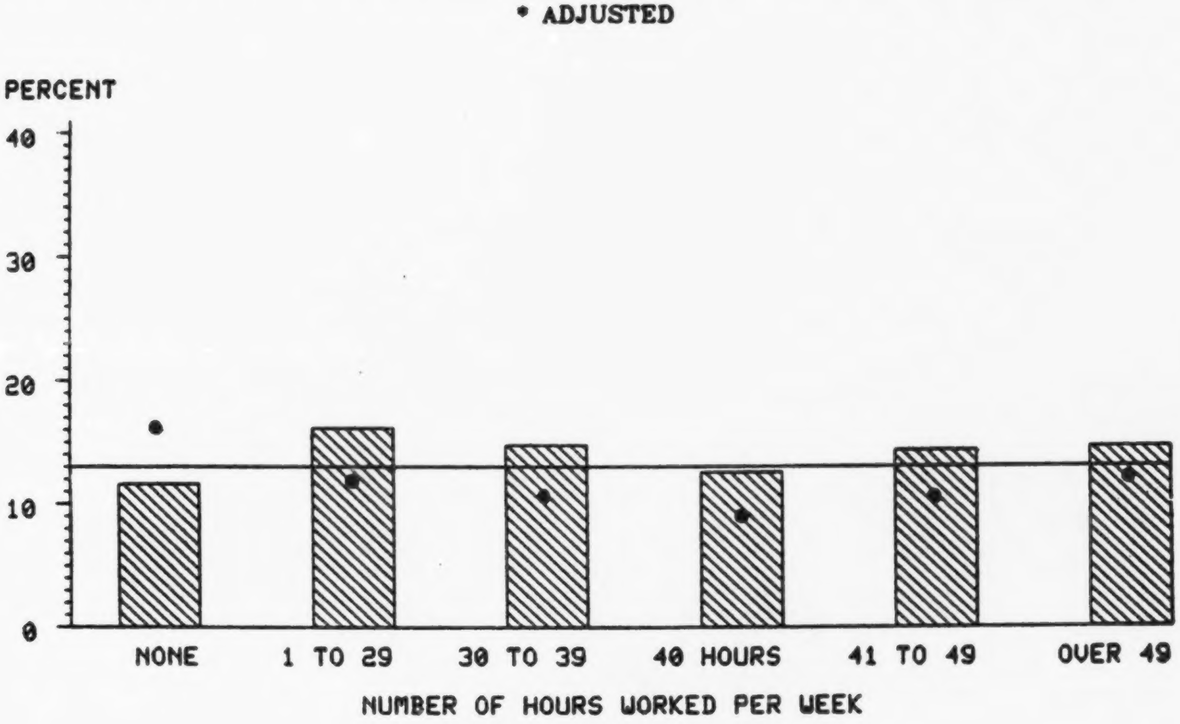
ATTEND CLASSICAL MUSIC BY MARITAL STATUS



Those divorced and those never married attend classical music performances at rates above the national average. Those married are somewhat less likely than average to attend, while those widowed or separated are least likely to attend.

When other background factors are held constant, both those widowed and those separated attend at levels close to the national average, while attendance in other categories hardly changes at all. Age, income, and type of work may be the major factors suppressing participation by widowed and separated people.

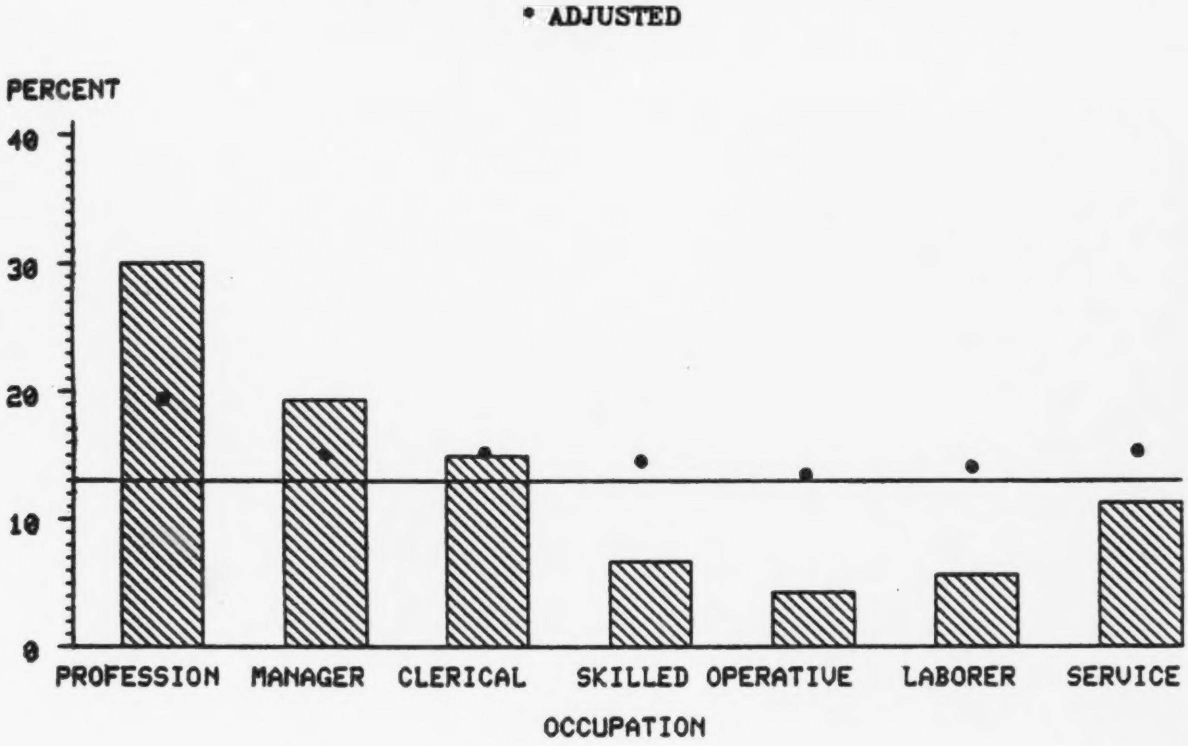
ATTEND CLASSICAL MUSIC BY HOURS WORKED



Those not working and those working 40 hours per week are less likely than average to attend classical music performances, while those who work both more and less than 40 hours per week are more likely to attend.

Interestingly, when all other background factors are held equal, all categories fall below the national average with one exception: those not working attend more than the national average. Age may be a factor here, as older groups who tend to attend more are also likely to be retired from work.

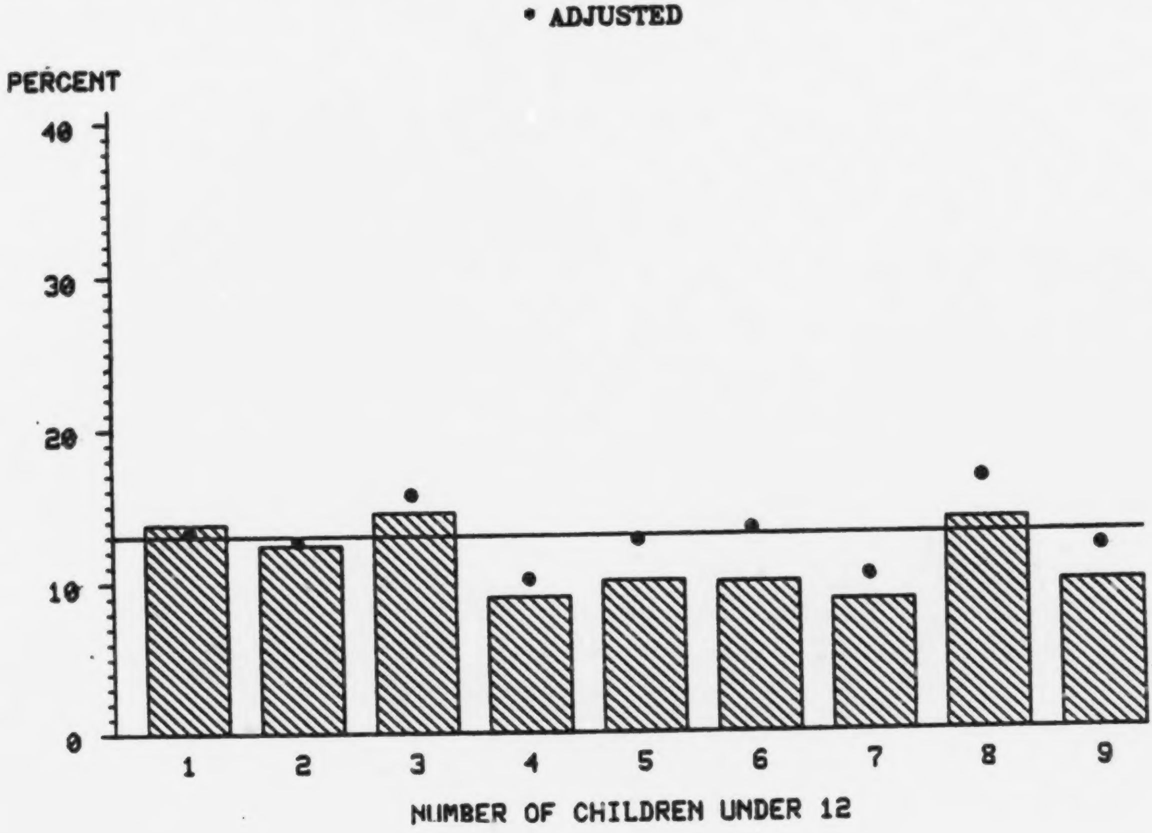
ATTEND CLASSICAL MUSIC BY OCCUPATION



Attendance rates vary greatly by type of work. Professionals attend at over twice the national average; students, not shown in this figure, also attend at a high rate (18.3%), close to that of managers. On the other hand, skilled craftsmen, operatives and laborers attend at rates less than half the national average. Other groups not shown in the figure, those not working (11.9%), housekeepers (10.9%) and the retired (9.0%), also attend at lower rates.

After adjusting for the other background variables, this variation is considerably reduced. All categories rise above the national average except those not working (10.5%), those keeping house (8.4%), students (11.7%) and the retired (9.2%). Much of this fluctuation is probably due to controlling the effects of income and education which are closely associated with occupation.

ATTEND CLASSICAL MUSIC BY NUMBER OF CHILDREN



Presence of Children:

1 No children
2 One 6-11
3 Two + 6-11
4 One under 6
5 One 6-11, One under 6
6 One under 6, Two+ 6-11
7 Two+ under 6
8 One 6-11, Two+ under 6
9 Two + 6-11, Two+ under 6

People without children at home are slightly more likely than average to attend classical music performances. Generally, those with children are less likely than average to attend with two exceptions: people with two or more children aged 6-11, and those with one child 6-11 and two or more under 6.

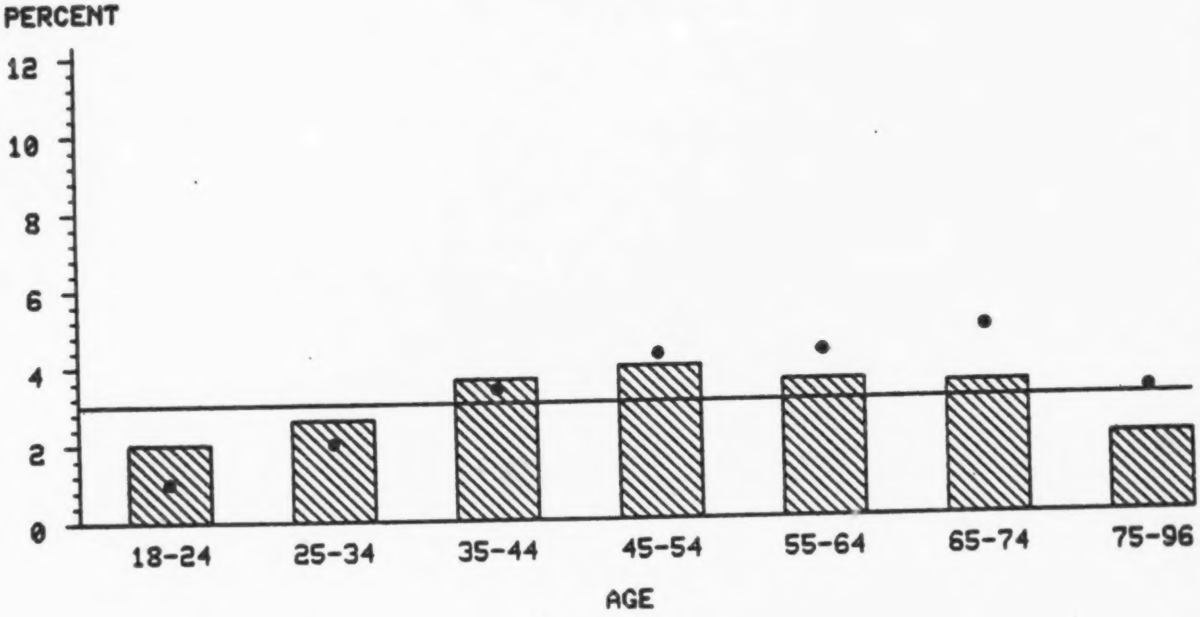
When other factors are held constant, the pattern remains the same except for a rise in attendance among those with children and moreso in categories of people with very young children.

OPERA

The most important predictors of opera attendance are education, income, work hours, and occupation (variation of 9.3-7.3%). When other factors are controlled, the factors that account for the most variation are education, occupation, and age (8.5-3.9%).

ATTEND OPERA BY AGE

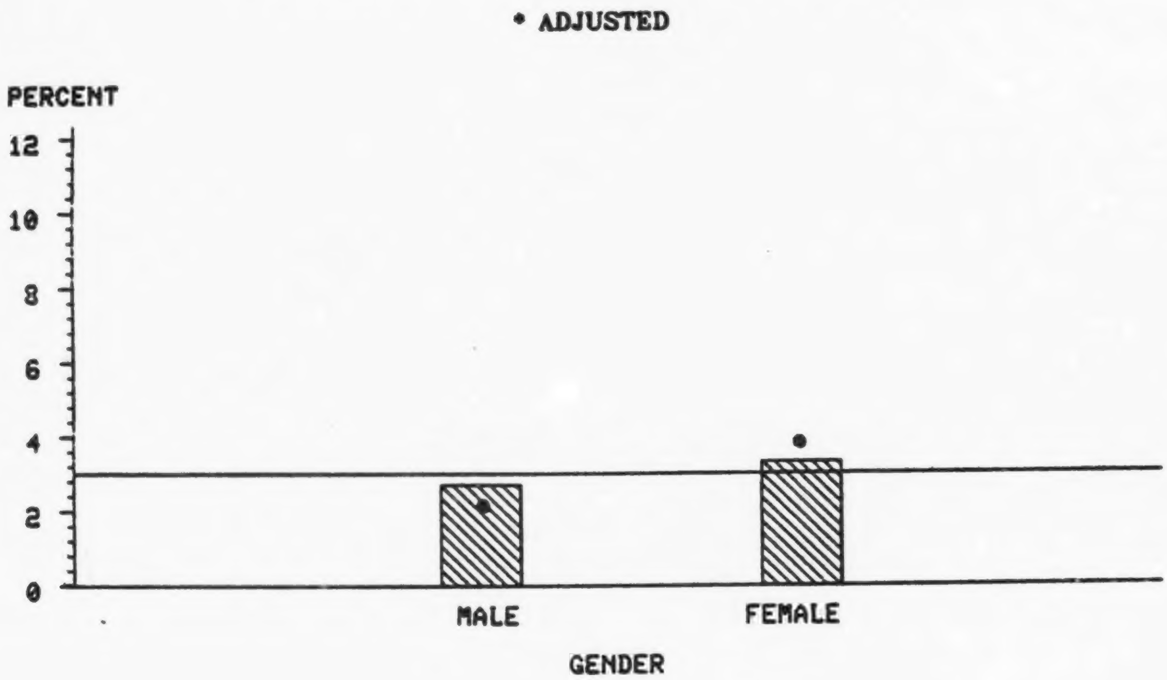
• ADJUSTED



As age increases, opera attendance also rises, reaching peak attendance rates in the 45-54 age category, slowly dropping in the 55-74 age group and then falling considerably below the national average in the over-75 group. Attendance rates definitely skew toward the older population.

When other factors are controlled for, the positive relationship between age and attendance is strengthened. Those over 35 are more than twice as likely to attend as those 18-24. Increasing age increases the likelihood of attendance, and attendance doesn't really drop off until the highest age category of people over 75. Even in this age category, participation remains above the national average, when factors like education, and work hours are taken into consideration.

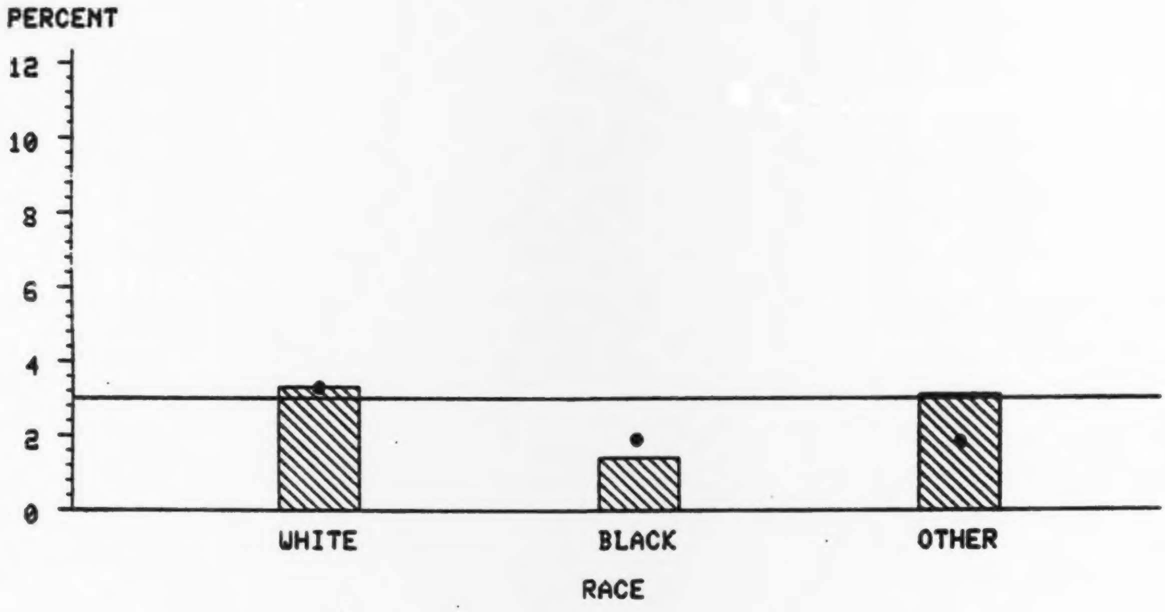
ATTEND OPERA BY GENDER



Females are more likely to attend opera than are males.

If the effects of other background variables like education are removed, differences between male and female attendance rates become even greater. Since females tend to have less education than males, and education is positively associated with attending the opera, education might be an important explanatory factor in these findings.

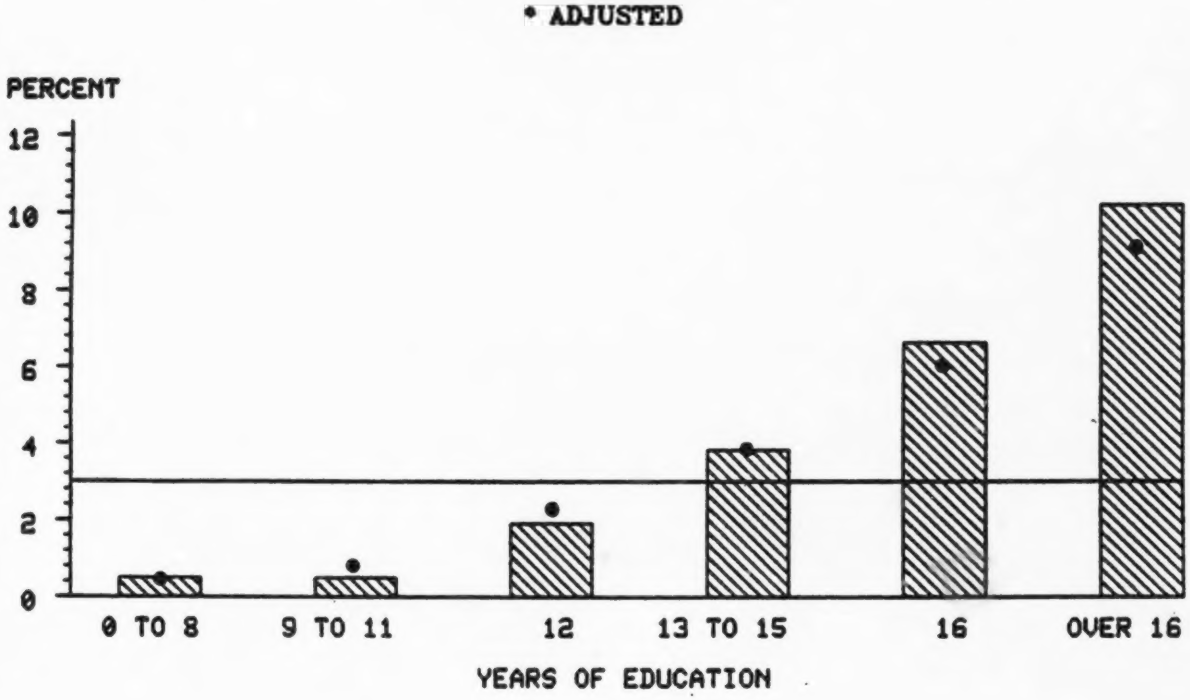
ATTEND OPERA BY RACE



Blacks attend opera at less than the average national rate, while whites and "other" races attend slightly above the national average.

When the other background factors are held equal, black participation is increased and whites' rate is essentially unchanged, but "other" races' rate drops below average and is equal to blacks' rate. Thus, race has an effect independent of the other background factors for comparisons between blacks and whites, but not for comparisons between blacks and "other" races.

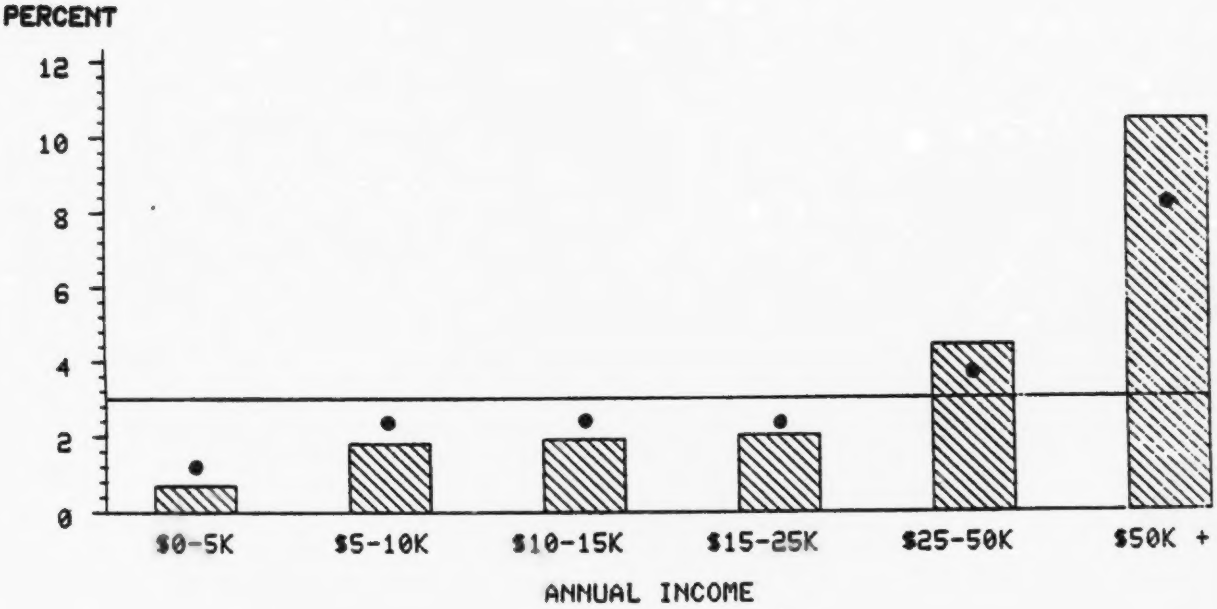
ATTEND OPERA BY EDUCATION



Better educated persons are more likely to attend opera performances. Those with less than a high school education attend at less than a third of the average rate; those with education beyond high school attend at rates progressively greater than the national average, until those with graduate school education attend at a rate three times the national average.

The pattern of rising attendance with increased levels of education remains fundamentally unchanged after adjusting for the effects of the other background variables. The linear relationship between education and attendance at the opera makes education an important explanatory factor.

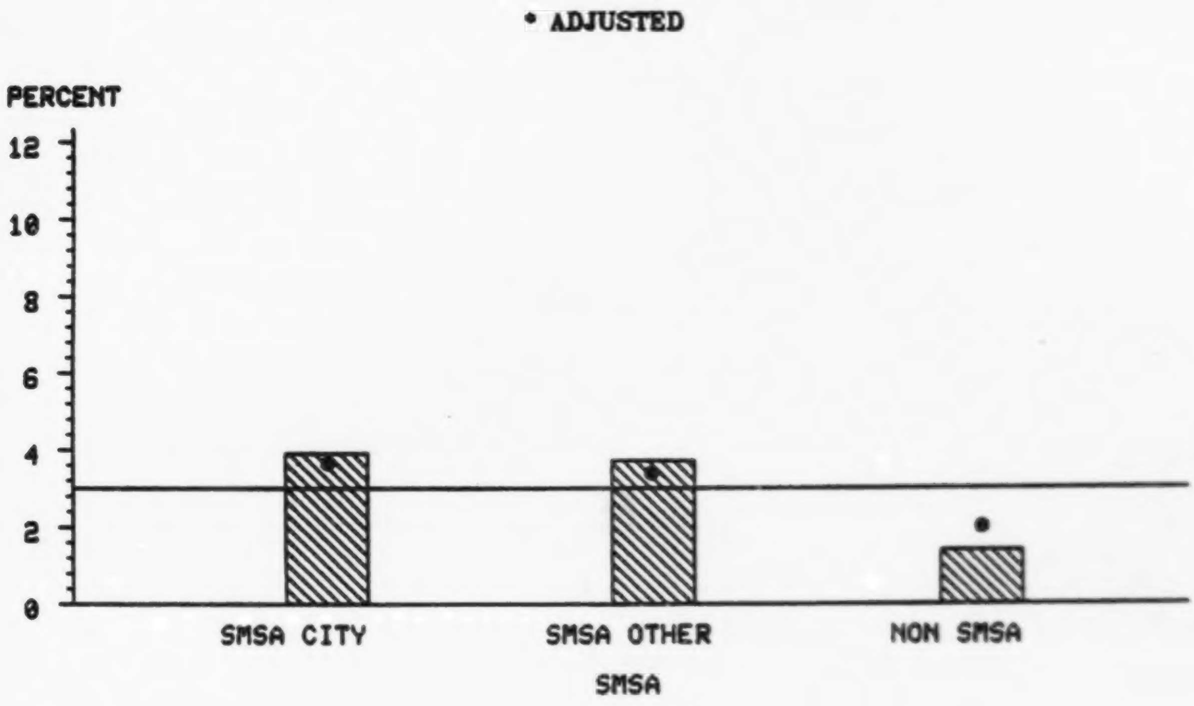
ATTEND OPERA BY INCOME



While those who are wealthier are more likely to attend operas, only those in the highest income bracket attend at a markedly higher rate.

The general trend, though somewhat diminished in range, is the same after adjustment. The close association between education and income probably accounts for these weaker results after the effects of income are isolated from those of other background factors.

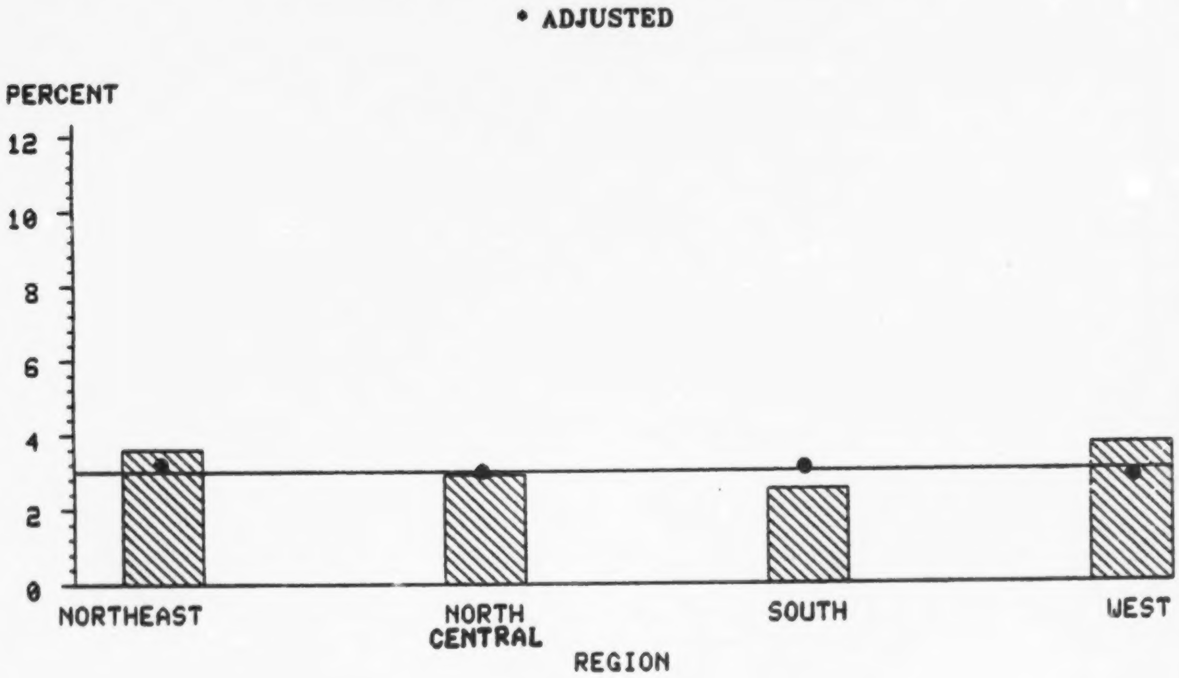
ATTEND OPERA BY SMSA



Opera attendance is slightly greater than the national average among those living within an SMSA, whether inside or outside a central city. Outside of SMSA's, residents attend at a rate of about half of the national average. These differences might reflect the greater availability of opera performance in urban areas compared to nonurban areas..

After equalizing the other factors, the pattern is essentially the same.

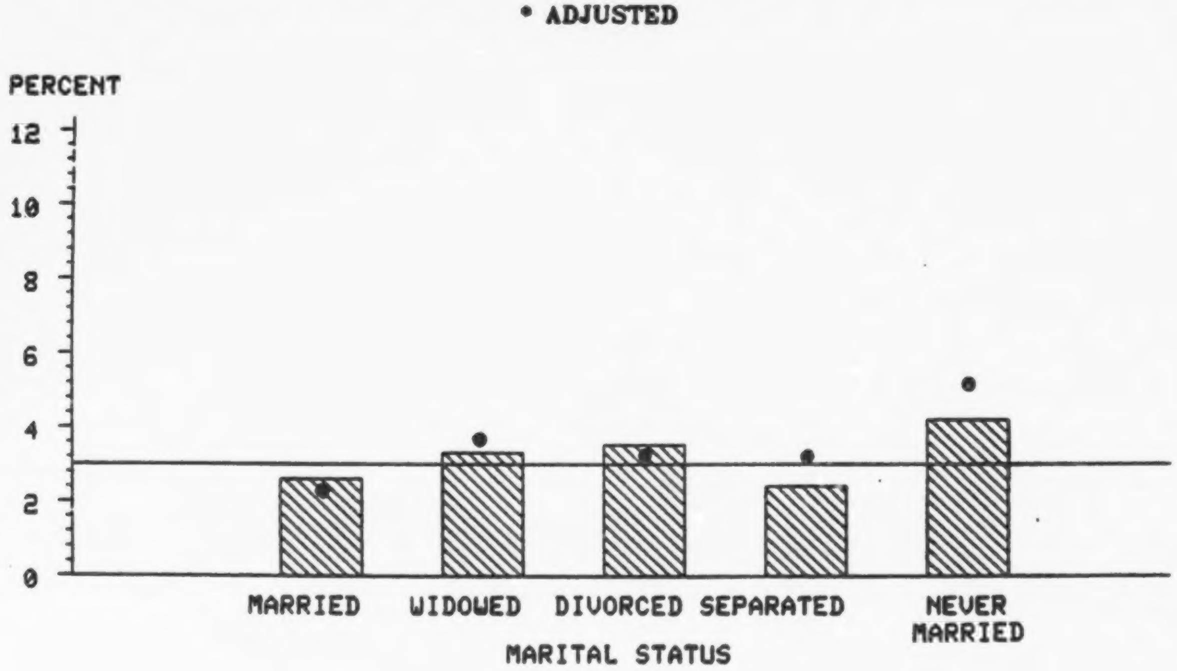
ATTEND OPERA BY REGION



Those living in the Northeast or the West are slightly more likely to attend opera than those living in the Northcentral or the South, and attendance in the south falls slightly below the national average.

When the impact of other background factors is removed, the participation rates in all regions are almost equal. This means the unadjusted differences in attendance are almost totally accounted for by differences in the other factors, and region has little value in explaining attendance at the opera. One crucial underlying factor might be the urban-rural dimension, since South and Northcentral regions tend to be more rural and rural areas have less opera available.

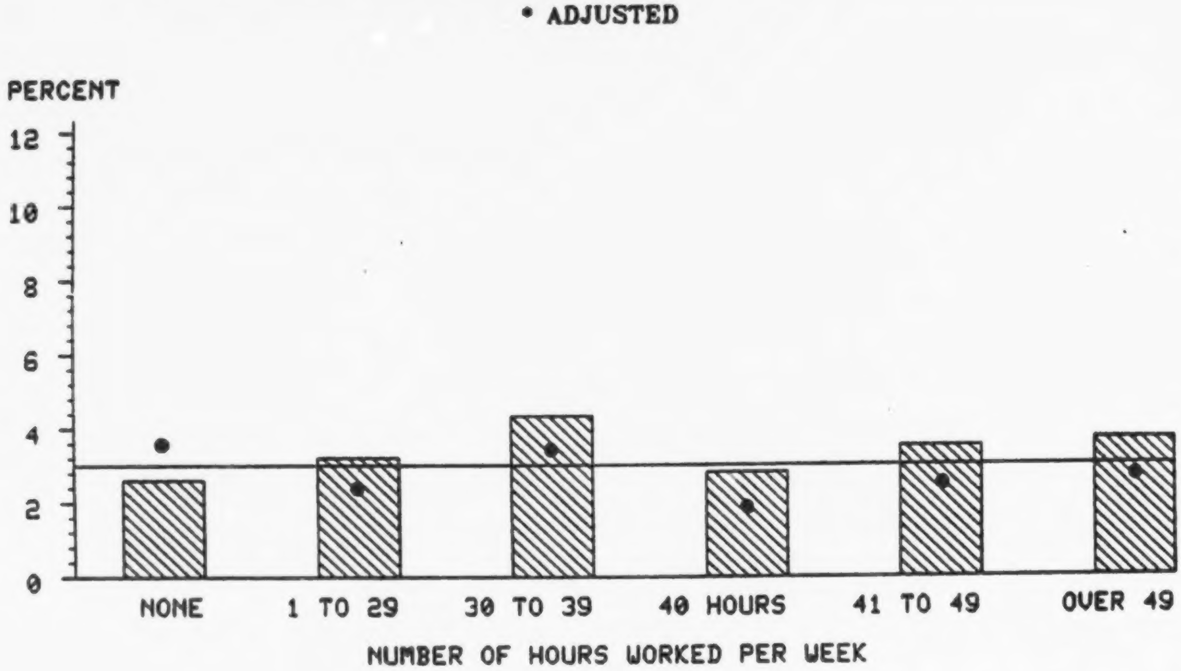
ATTEND OPERA BY MARITAL STATUS



Those never married, divorced, or widowed are more likely to attend opera than the average individual, while married or separated individuals attend at slightly less than average rates.

Adjustment for the effects of the other background variables notably increases the never married rate and the separated rate, moving the latter to above the national average, slightly decreases married and divorced participation, and slightly increases widowed participation. Age, for example, might have suppressed participation in the never married category, as income might have for the separated category.

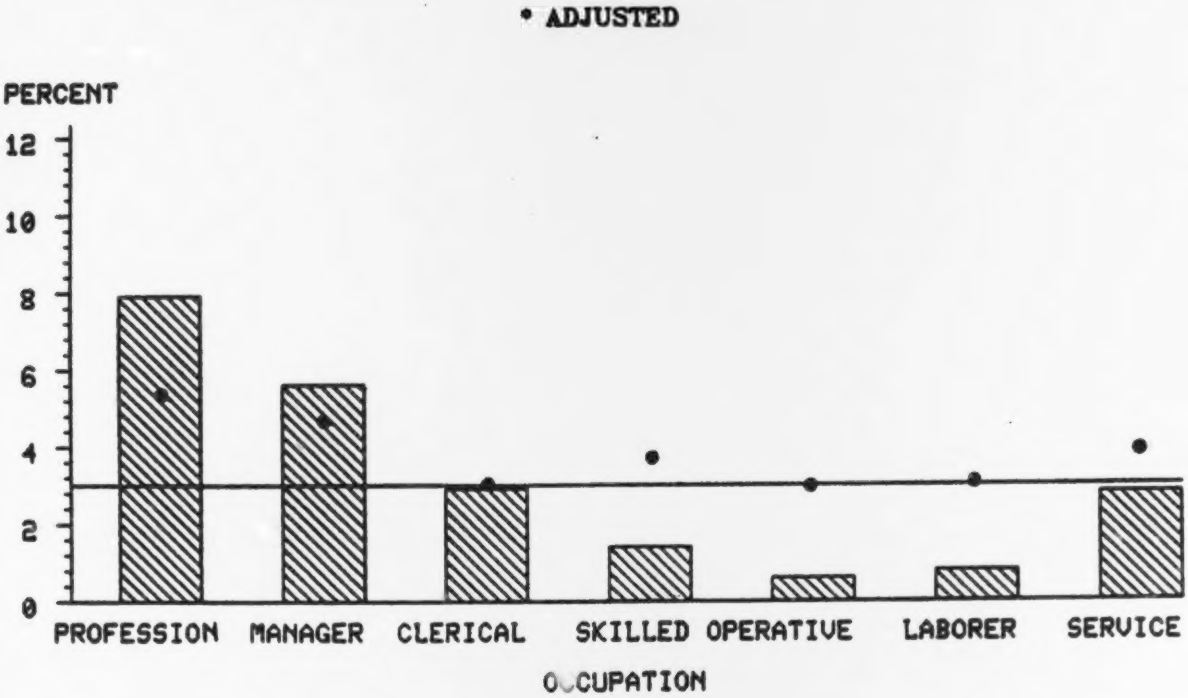
ATTEND OPERA BY HOURS WORKED



Those not working or people working 40 hours a week attend at below the national average. Those working either less or more than 40 hours are more likely than average to attend opera.

Other factors being equal, however, attendance rates drop in every category of working people, while they rise among people not employed. Adjusted attendance rates show only this category and people working 30 to 39 hours attending at rates above the average.

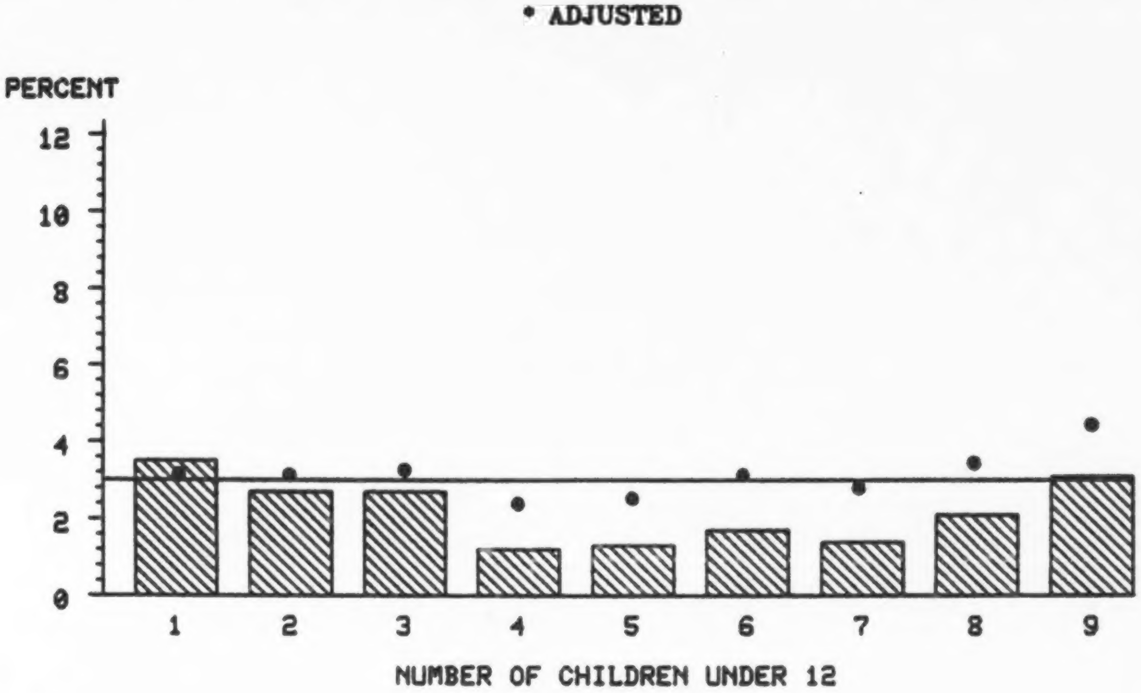
ATTEND OPERA BY OCCUPATION



Among occupational groups, professionals and managers stand out as disproportionately more likely to attend opera, at rates roughly twice the average. On the other hand, operatives, laborers, and skilled craftsmen attend at rates notably below the average. Unpaid categories (those not working, housekeepers, students, and the retired) hover about the national average, with students at the highest rate of 3.8% (not shown above).

After other background factors are held equal, all paid occupations attend at rates matching or exceeding the national average, whereas unpaid categories (not in figure) are all below average. The higher education level of professionals and managers might have inflated their unadjusted attendance rates, although occupation itself has some explanatory power.

ATTEND OPERA BY NUMBER OF CHILDREN



Presence of Children:
1 No children
2 One 6-11
3 Two + 6-11
4 One under 6
5 One 6-11, One under 6
6 One under 6, Two+ 6-11
7 Two+ under 6
8 One 6-11, Two+ under 6
9 Two + 6-11, Two+ under 6

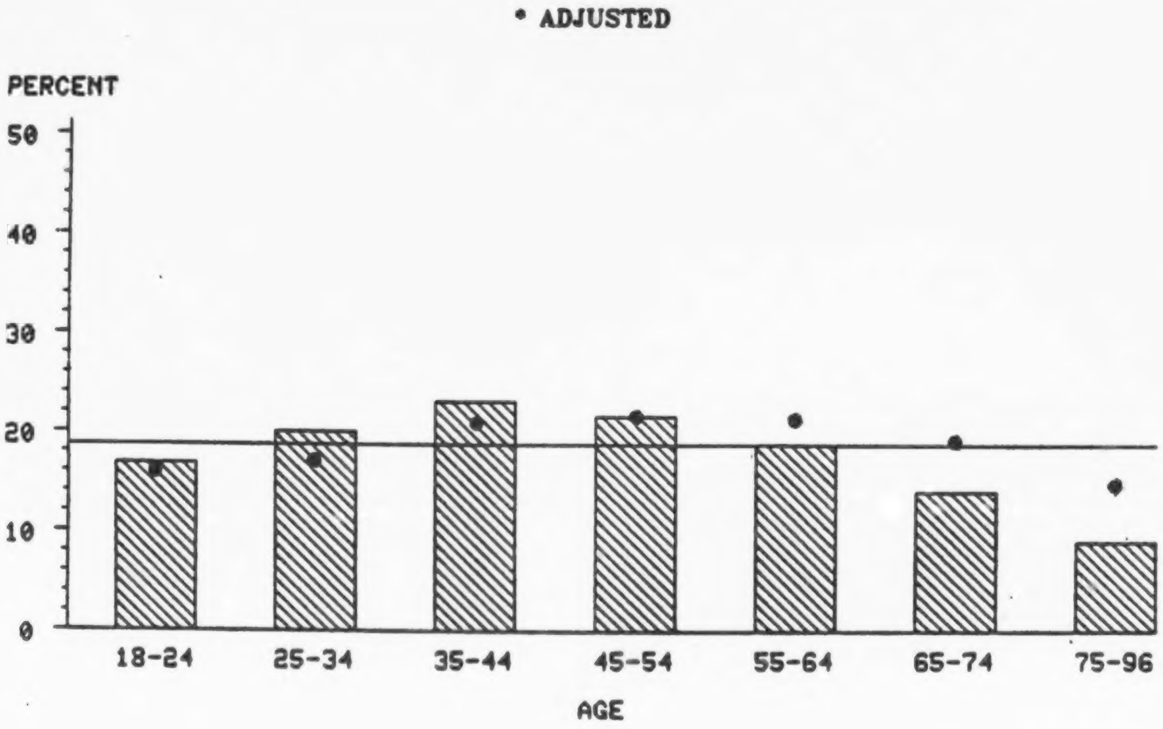
In contrast to childless individuals, those with children generally attend opera at less than the national average. The one exception is households with two or more children in each age category measured (0-6 years and 6-11 years).

When adjustments are made for the impact of the other background factors, the attendance rates rise for those with children (particularly with younger children) while the rate for those without children in the household falls to approximate the average. Thus, much of the variation in participation is due to other factors, such as age. For example, people with older children tend to be older and age is positively related to attendance.

MUSICAL PLAYS AND OPERETTAS

The best predictors of attending musicals are education, occupation, and income (variations of 40.7-21.3%). When other factors are held equal, the same predictors as well as race are the best explanatory factors (variations of 32.1-10.4%).

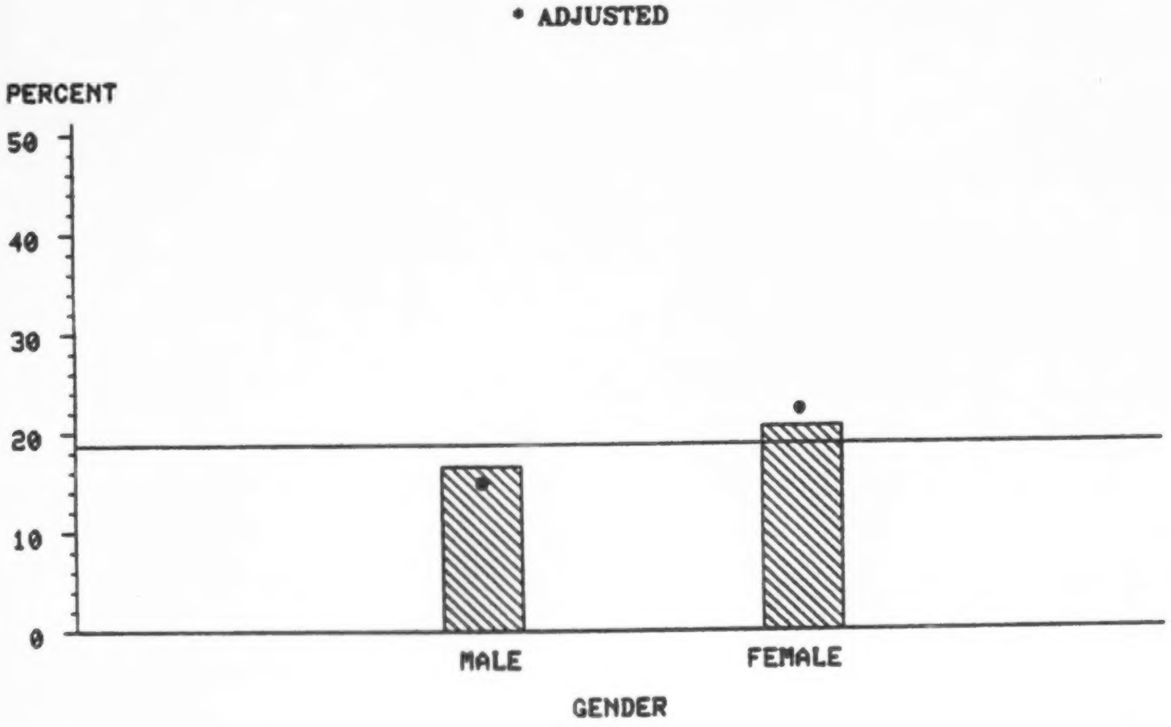
ATTEND MUSICALS BY AGE



Attendance rates for musicals rises to a peak among those aged 35-44, and then falls for older age groups.

The same pattern holds in attenuated form after controlling for the influence of other factors. Much of the lower rates for the oldest groups is not due to age per se, but to other factors like education and income which may be lower in the highest age categories.

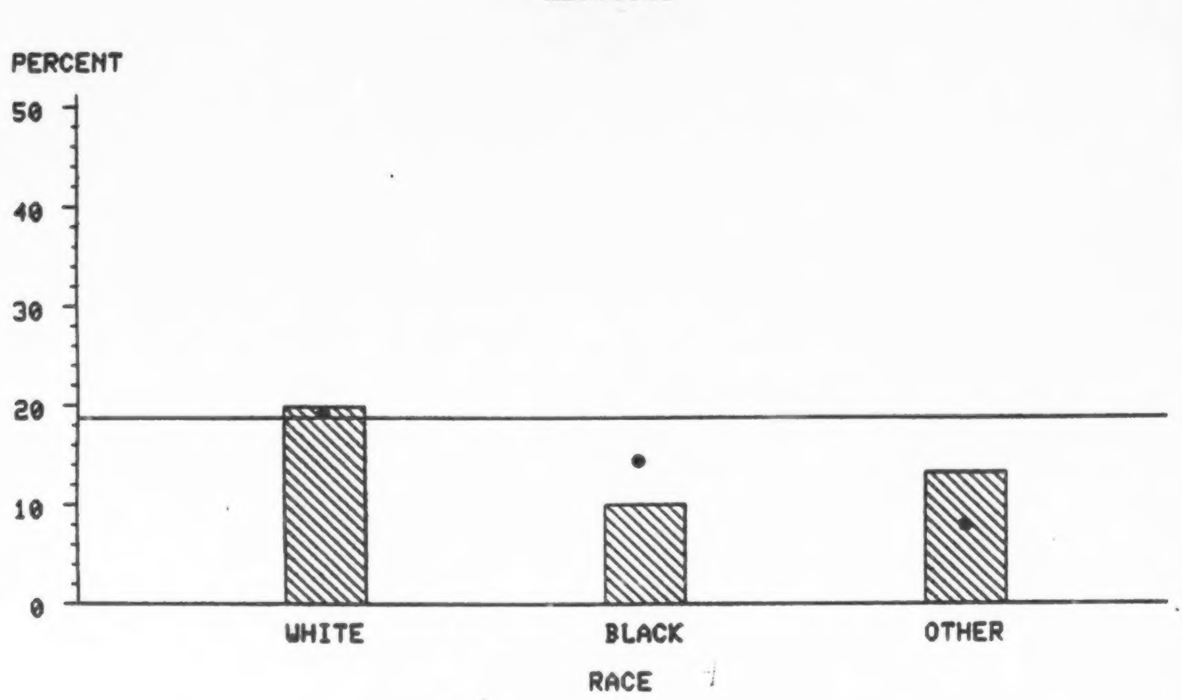
ATTEND MUSICALS BY GENDER



A greater percentage of females than males go to musicals.

When other factors are equalized, the differences between male and female attendance grow more pronounced. The lower education and income levels of females might be important factors in explaining sex differences in attending opera.

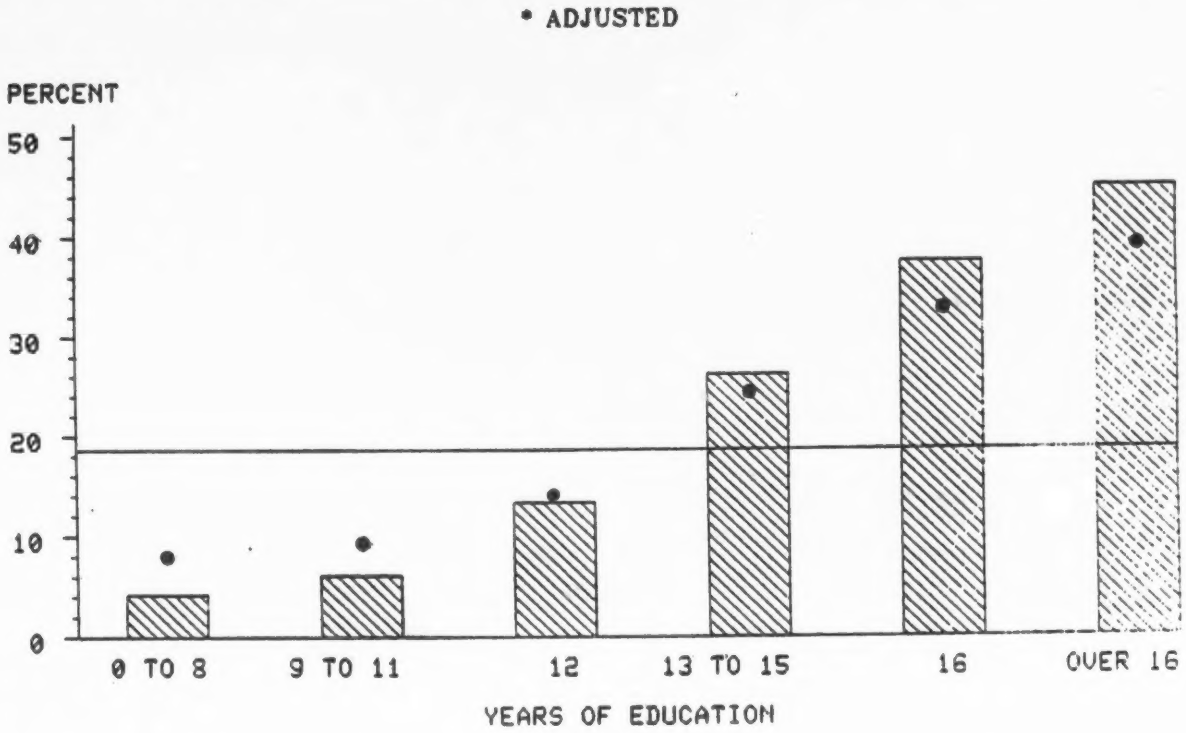
ATTEND MUSICALS BY RACE



Whites are slightly more likely than average to attend musicals, while blacks and "other" races' attendance rates are lower than the national average.

After adjusting for the effects of other background factors, the most noticeable change is a reversal of the rankings of blacks and "other" races. The attendance rates of blacks and "other" races are strongly explained then by other factors (possibly education and income), whereas the attendance rates of whites are largely independent of the influence of the other factors.

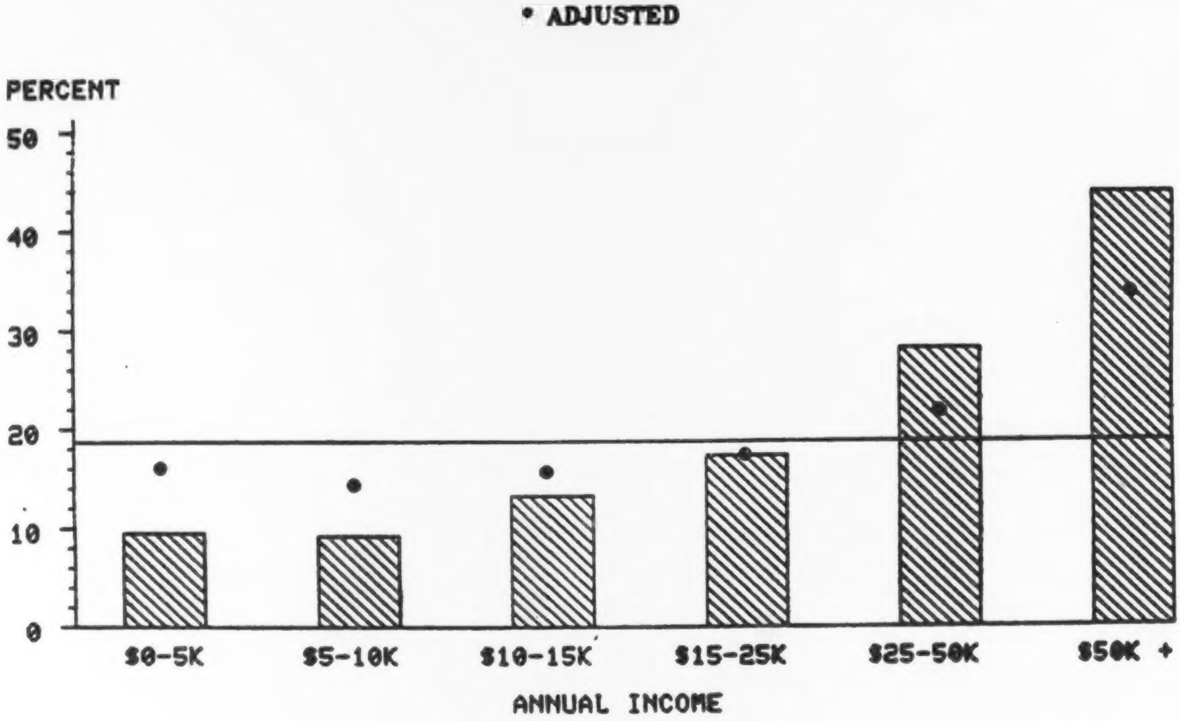
ATTEND MUSICALS BY EDUCATION



Education is a strong predictor of attendance at musicals. Better educated persons are much more likely to attend. The rate crosses the national average with exposure to college education.

The pattern is essentially the same after equalizing other background factors. Education retains its linear relationship to attendance at musical performances and remains an important explanatory factor in and of itself.

ATTEND MUSICALS BY INCOME

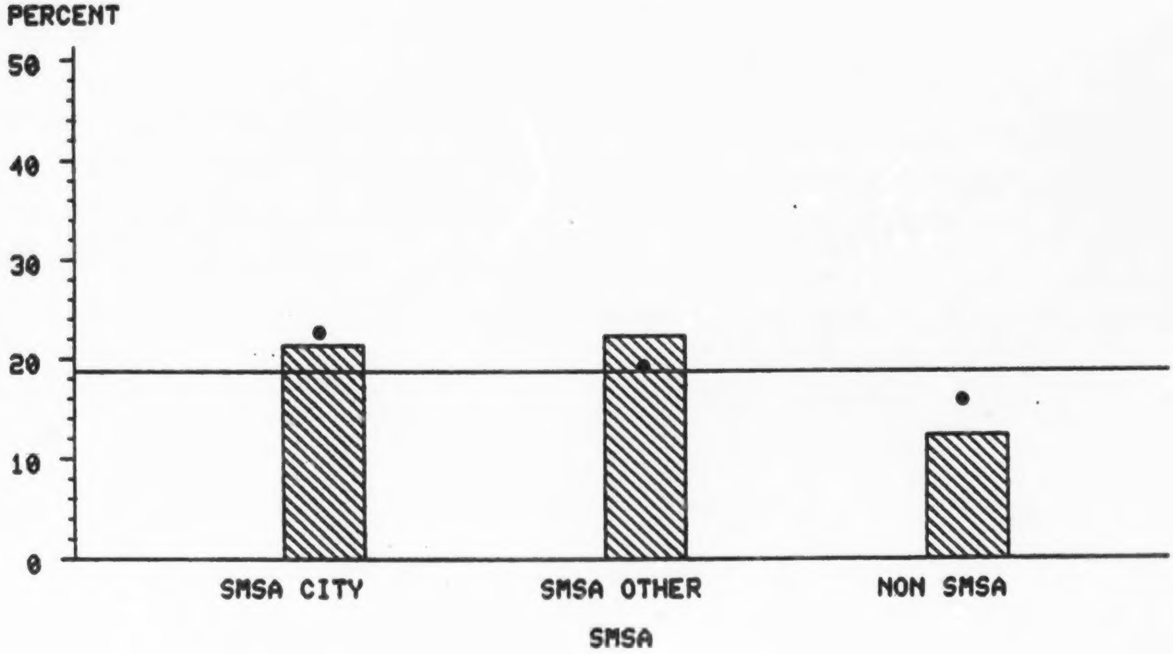


Attendance of musicals rises with income, crossing the national average with the category of $25,000-$49,999. Compared to persons in the lowest income brackets, those in the highest brackets are two to three times more likely to attend.

The same pattern generally holds after adjustment for the impact of other factors, although the relationship between income and attendance is less strong after underlying factors like education and occupation have been taken into consideration.

ATTEND MUSICALS BY SMSA

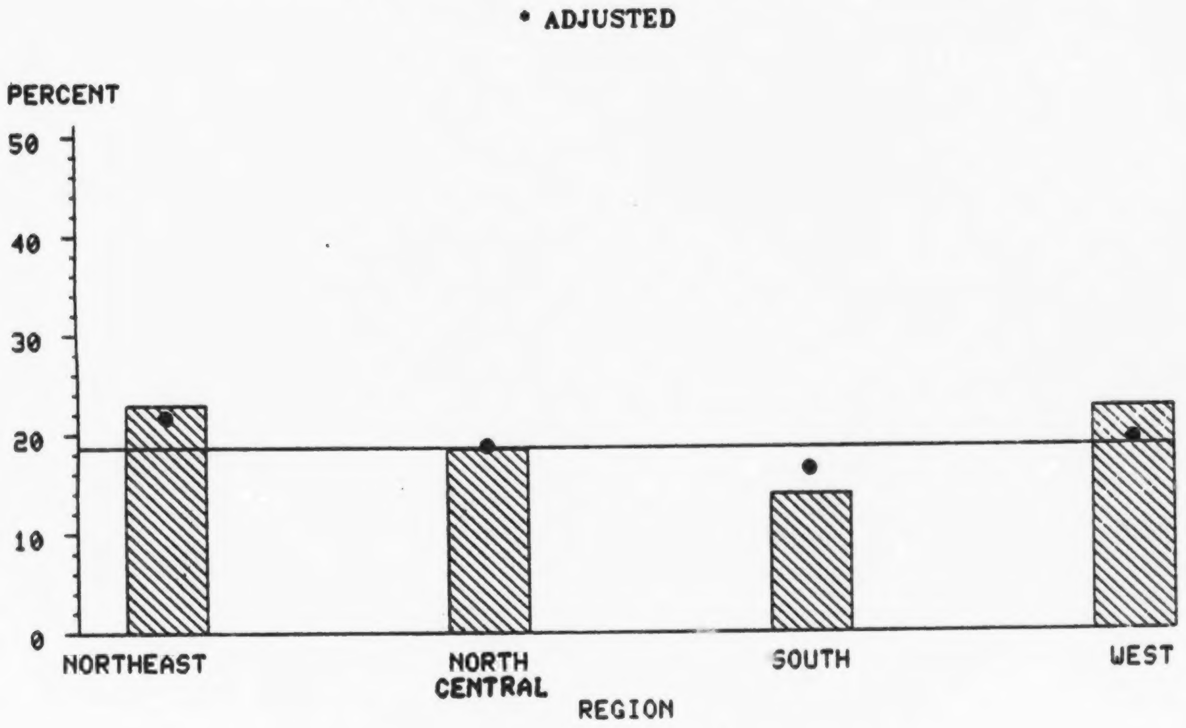
• ADJUSTED



Residents of SMSA's, both inside and outside of central cities, attend musicals at a considerably higher rate than those residing outside of SMSA's.

After adjusting for the effects of other factors, residents of central cities of SMSA's are slightly more likely to attend than are residents of SMSA's not within a central city; residents in non SMSA areas show increased attendance but still fall below the national average. Since musical theater is most often found in urban centers, less access to musical performances might influence this pattern.

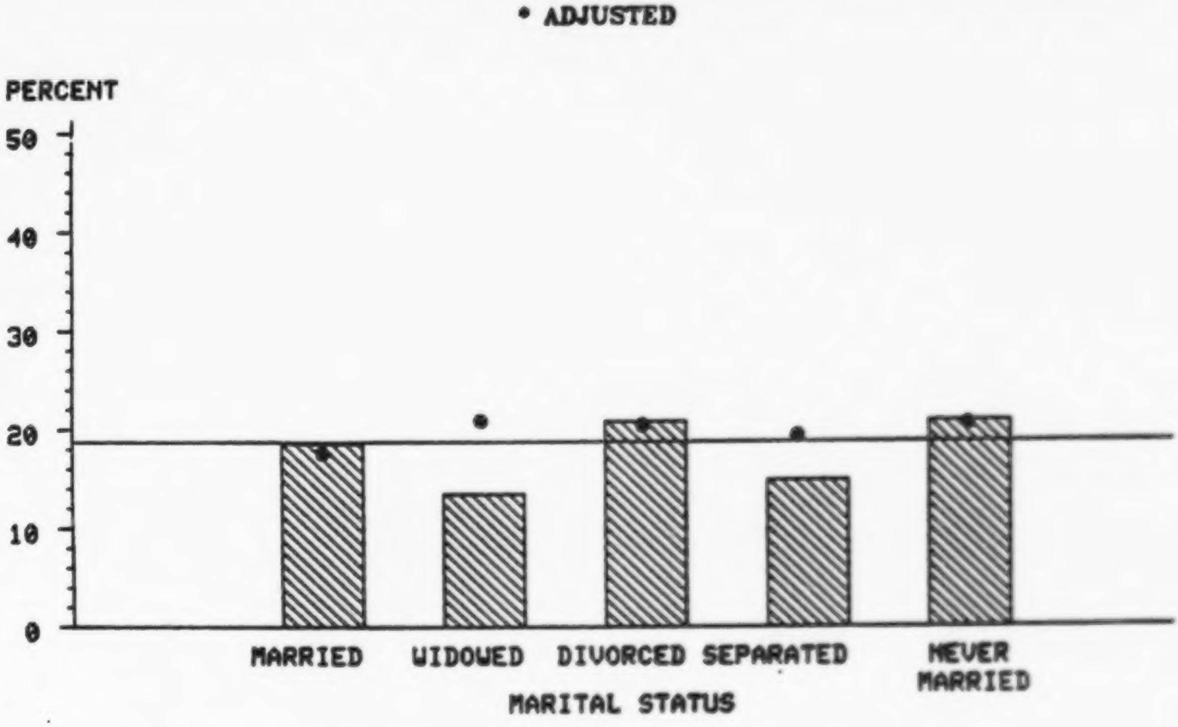
ATTEND MUSICALS BY REGION



The Northeast and the West have higher than average attendance rates for musicals. The Northcentral has an about average rate, while the South has a lower than average rate.

Adjustment for the impact of other factors moves all rates toward the average. For example, over half of the difference in rates between the South and the West is due to the impact of other factors. Still, residents of the South have the lowest attendance rate even when the effects of other background factors are removed. Differential regional educational levels as well as varying availability of musicals are likely to be important factors here.

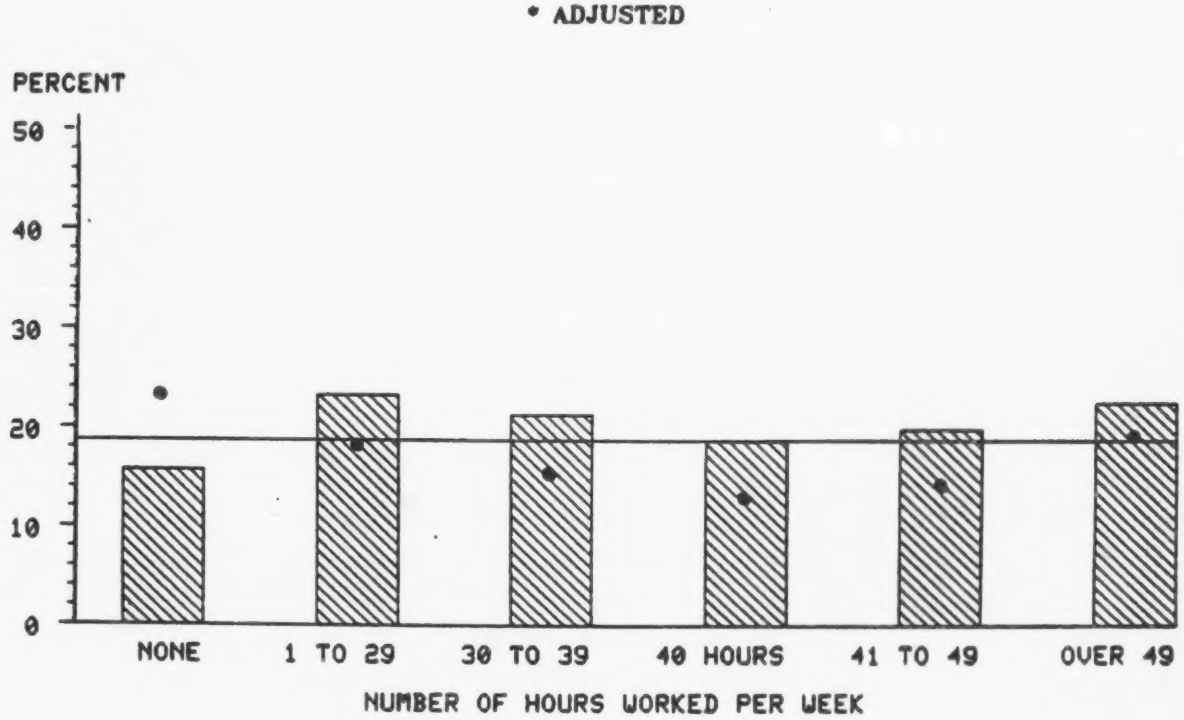
ATTEND MUSICALS BY MARITAL STATUS



The married, never married, and divorced are more likely to attend musicals than the average person. People widowed and separated attend less than the national average.

When other factors are held equal, all groups, except for those married, demonstrate roughly the same above average rate of attendance. The low unadjusted rates for widowed and separated people were probably due to related factors like income, age and education.

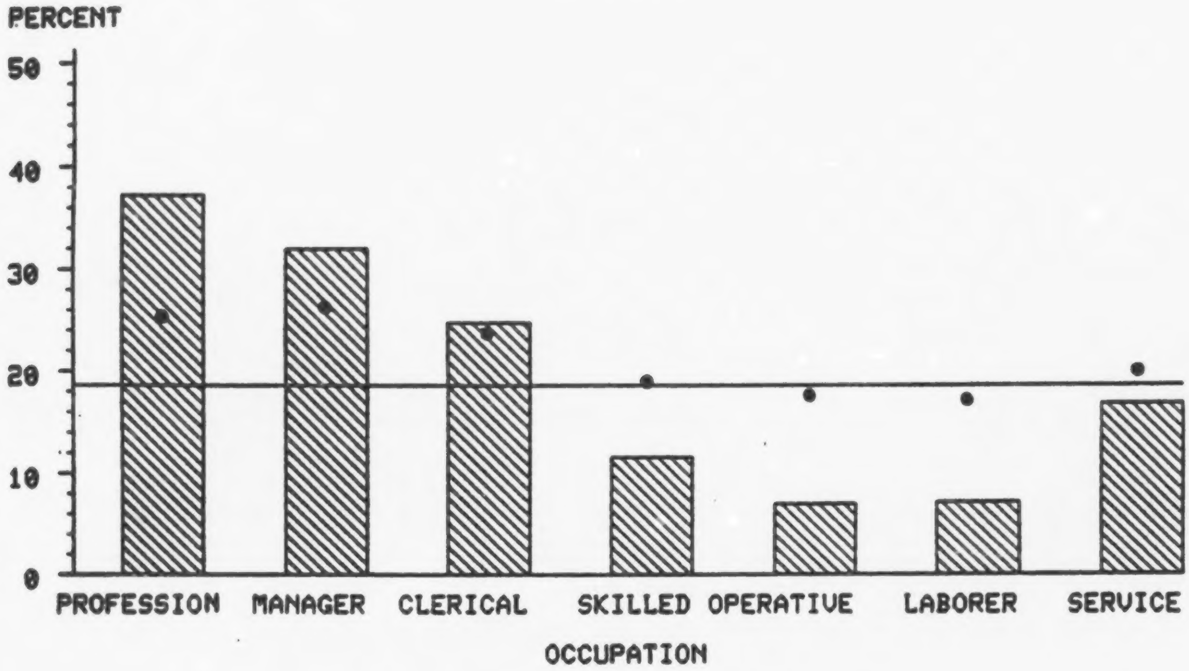
ATTEND MUSICALS BY HOURS WORKED



Employed people with long work hours are no less likely to attend musicals than those who work less than 40 hours per week. People with no work hours are least likely to attend musicals.

However, after adjustment for other factors (such as education and age), people with no work hours are most likely to attend musicals. Those with longest work hours are also slightly above average in attending musicals. Controlling for other background factors reveal an overall U-shaped or curvilinear relation between work hours and attending musicals.

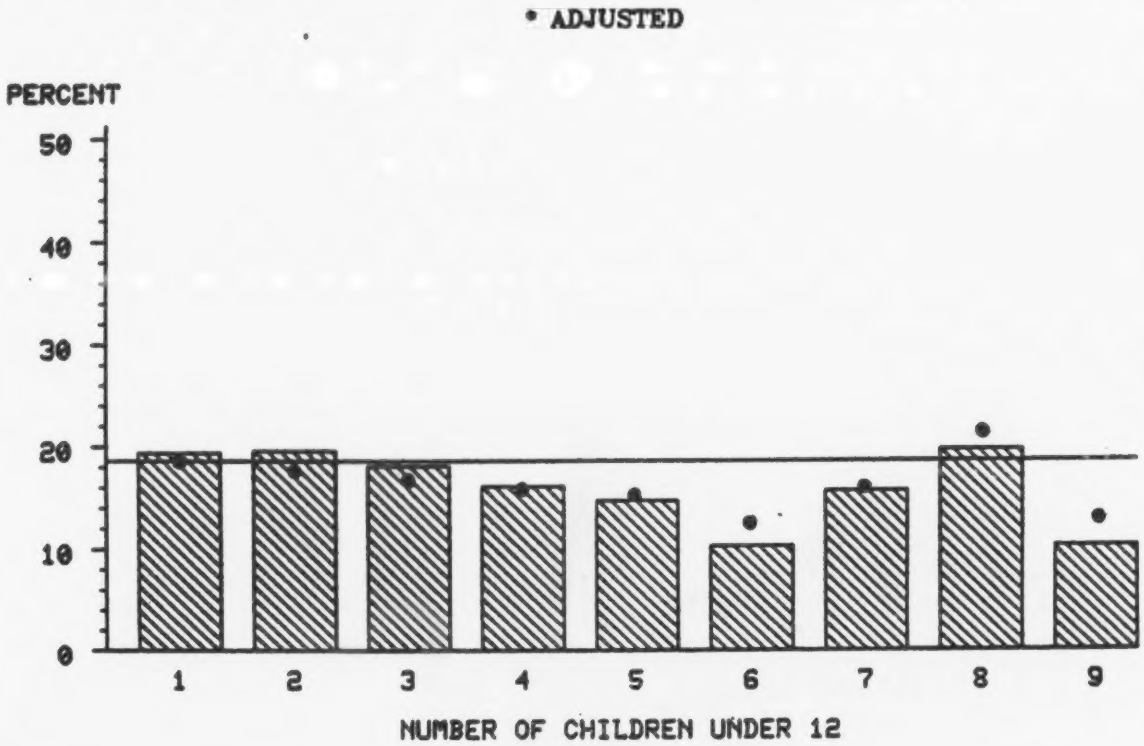
ATTEND MUSICALS BY OCCUPATION



Managers, professionals, and sales and clerical workers have the highest rates for attending musicals. Students, not shown in this figure, show a very high rate of 24.0% attendance. All other occupational groups have below average rates of attendance.

When other background factors are taken into consideration, these differences between occupational groups lessen. Professionals and managers show lower rates of attendance, as do students (17.2%). Sales persons and clerical workers show little change. All other groups, except two not shown above, those not working and homemakers, rise to approximate the average.

ATTEND MUSICALS BY NUMBER OF CHILDREN



Presence of Children:

1 No children
2 One 6-11
3 Two + 6-11
4 One under 6
5 One 6-11, One under 6
6 One under 6, Two+ 6-11
7 Two+ under 6
8 One 6-11, Two+ under 6
9 Two + 6-11, Two+ under 6

Those with no children, those with one child over six, and those with two younger and one younger child tend to have higher attendance rates for musicals than other groups, particularly those with younger children.

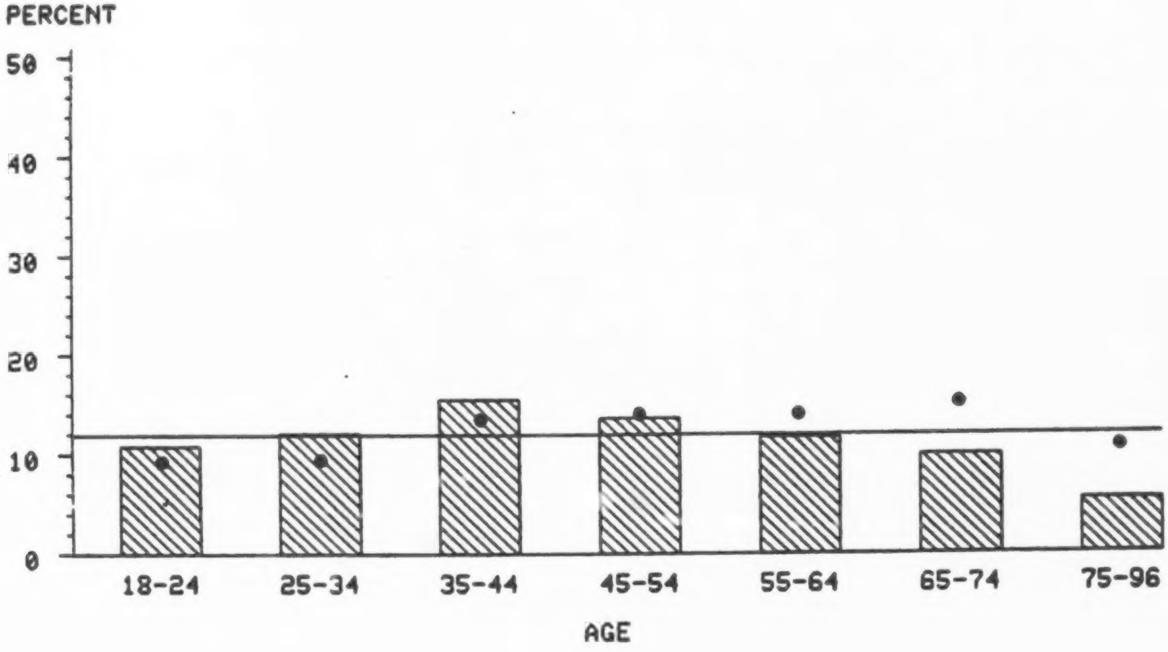
Adjustments for the effects of the other factors only marginally change the overall pattern. Clearly, presence of children tends to inhibit attendance at musical performances.

NON-MUSICAL PLAYS

Education and occupation are the most important predictors of attending plays (variations of 34.6-23.4%). After adjustments for the influence of other factors, education is by far the best predictor (variation of 29.6%).

ATTEND PLAYS BY AGE

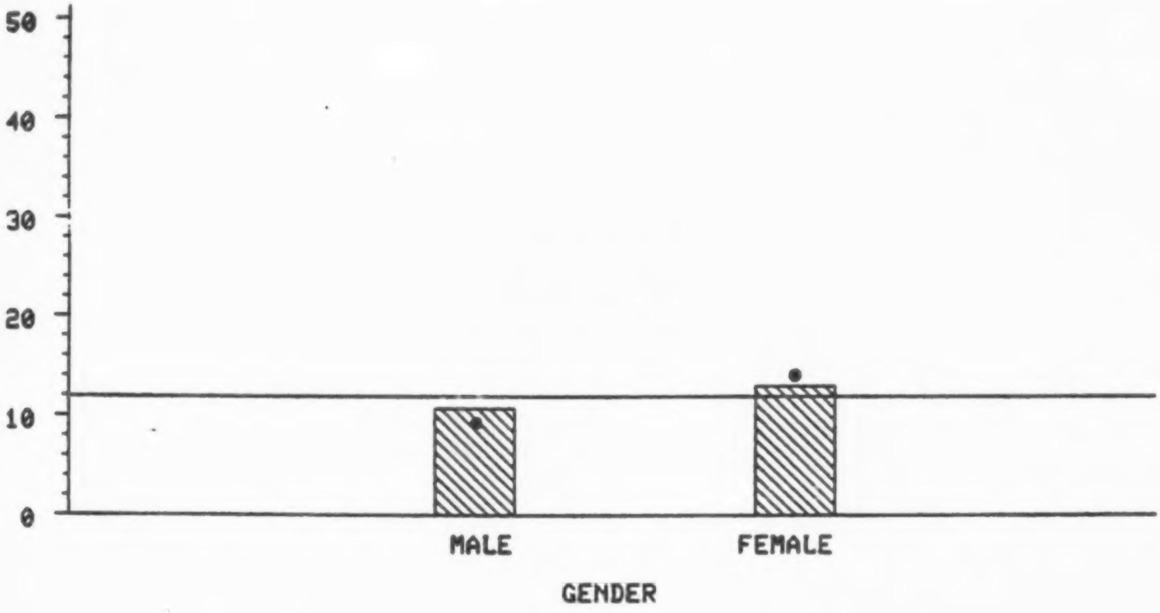
• ADJUSTED



Middle-aged persons, those in the 35-44 age category, are most likely to attend plays. The rate also rises above the national average among the 45-54 age group and falls below average in the 65-74 and 75-96 categories.

However, if the effects of the other background factors are removed, the attendance rate is considerably higher among the older segments of the population, and the earlier curvilinear relationship between age and attendance disappears. This effect is probably a result of taking the often lower income and education of older people into account.

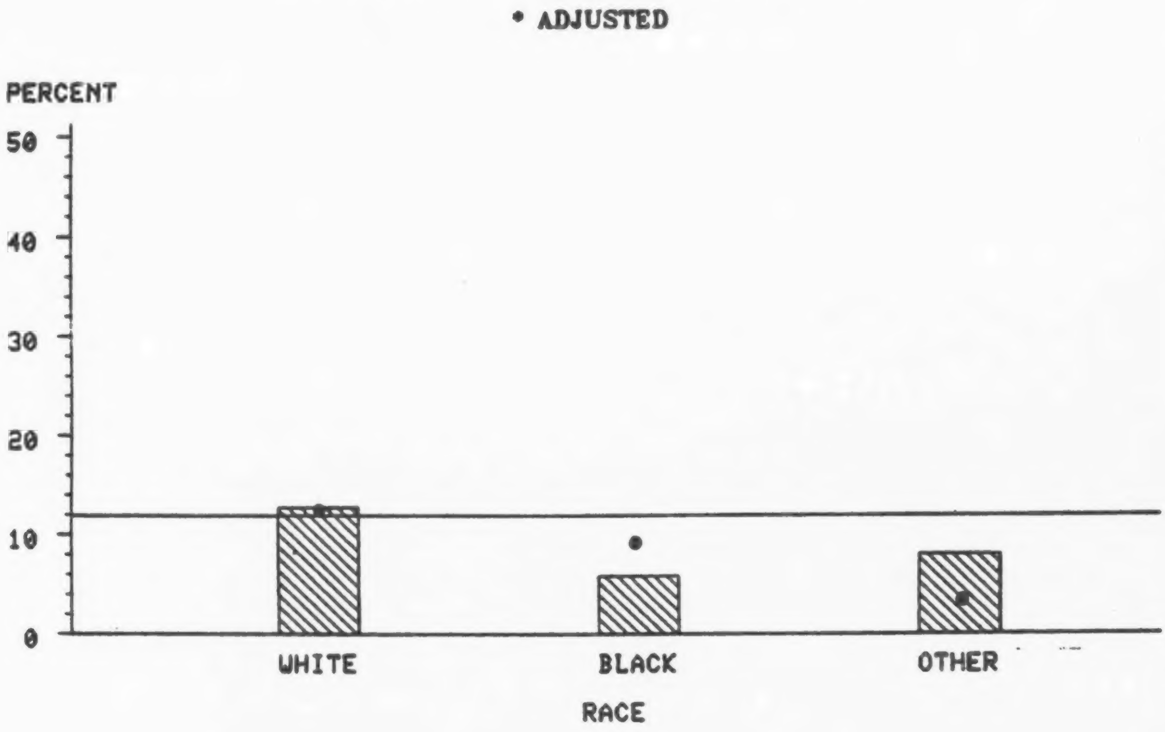
ATTEND PLAYS BY GENDER



Females are more likely to attend plays than are males.

When other factors are held constant, females are even more likely to attend than are males. Once again, differential income and education may have suppressed the original relationship between gender and play attendance in the unadjusted figures.

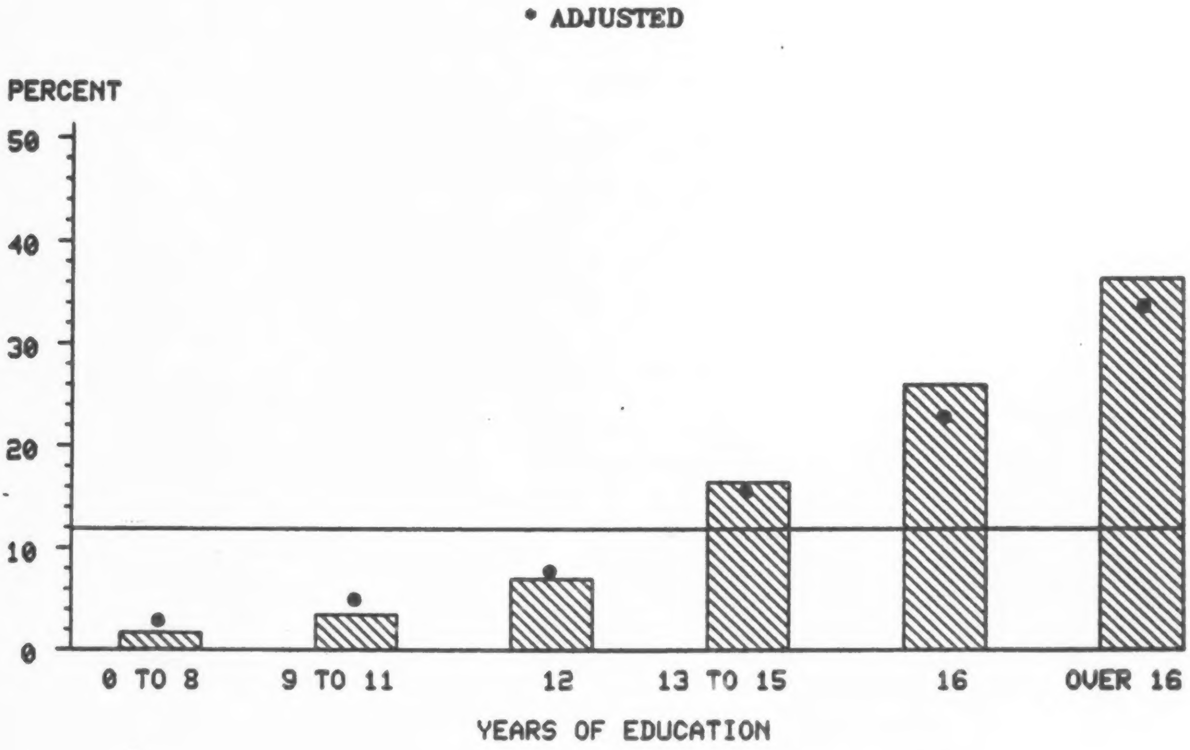
ATTEND PLAYS BY RACE



Whites attend plays at a rate slightly higher than the national average, while blacks and "other" races attend at respectively one-half and two-thirds of the national average.

When other factors are held equal, however, the positions of blacks and "other" races are reversed, although both remain below the national average. The white attendance rate is only slightly decreased. Attendance rates of blacks and people of "other" races are more strongly influenced by background factors than white attendance rates are.

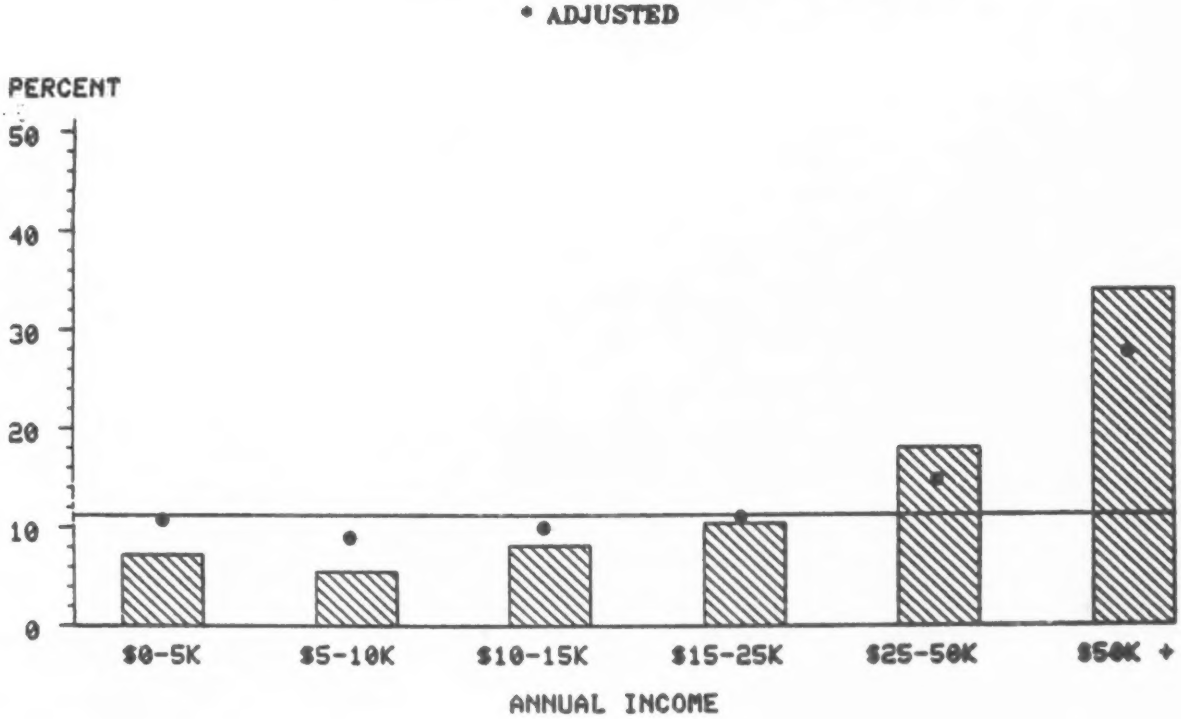
ATTEND PLAYS BY EDUCATION



Attendance rates rise sharply with education. A large increase occurs between high school graduates and those with some college. The strength of education as a predictor is evident by comparing the extremes: those with a grade school education participate at about one-sixth the national rate; those who attended graduate school participate at over three times the national average.

This pattern is essentially the same after controlling for the effects of other factors, and education maintains its linear relationship with attendance at plays. Education is a strong factor in explaining such attendance, independent of other background factors.

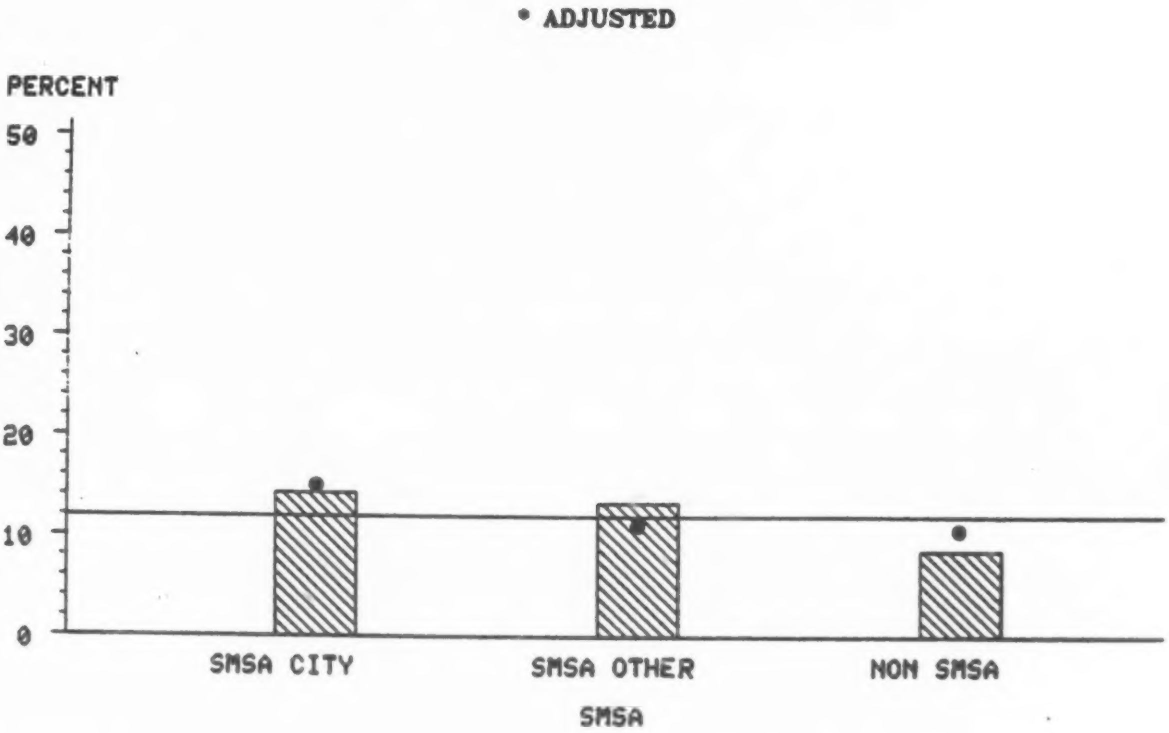
ATTEND PLAYS BY INCOME



Although those with incomes under $5,000 attend at a slightly higher rate than those earning $5,000-$9,999, the overall trend is one of increased attendance as household income rises. However, only income brackets over $30,000 are associated with above average attendance rates.

A small yet noticeable change after adjusting for the other factors is that those earning less than $5,000 have a higher attendance rate than the next two higher income brackets. The next three income categories also show higher rates of attendance, indicating that other factors were suppressing attendance in these categories in the unadjusted figures. (Only the top income category showed less attendance when other factors were considered.)

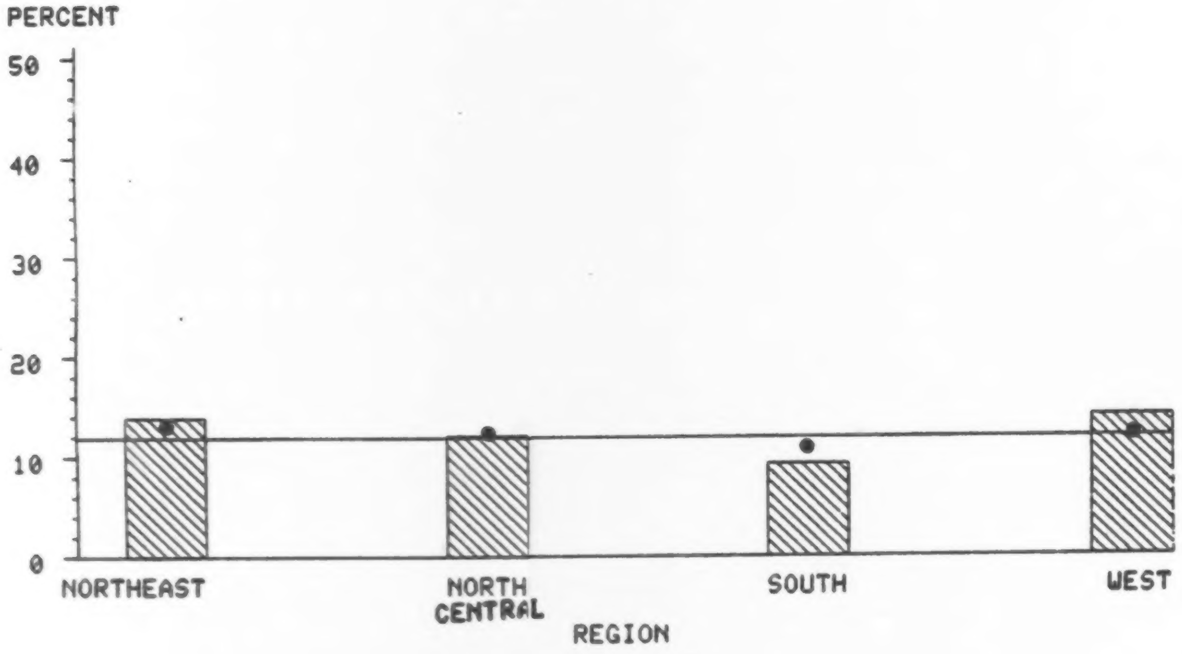
ATTEND PLAYS BY SMSA



Residents of SMSA's attend at a rate about 1-2% above the national average; residents outside of SMSA's, where performances may be less available, attend at a rate about 3% below the national average.

After adjustments for other factors, the rankings are unchanged, but differences between the three categories decrease, until residents outside SMSA's attend slightly nearly as often as residents within an SMSA but not in a central city. Background factors affect attendance in these two groups, but leave city attendance unchanged.

ATTEND PLAYS BY REGION

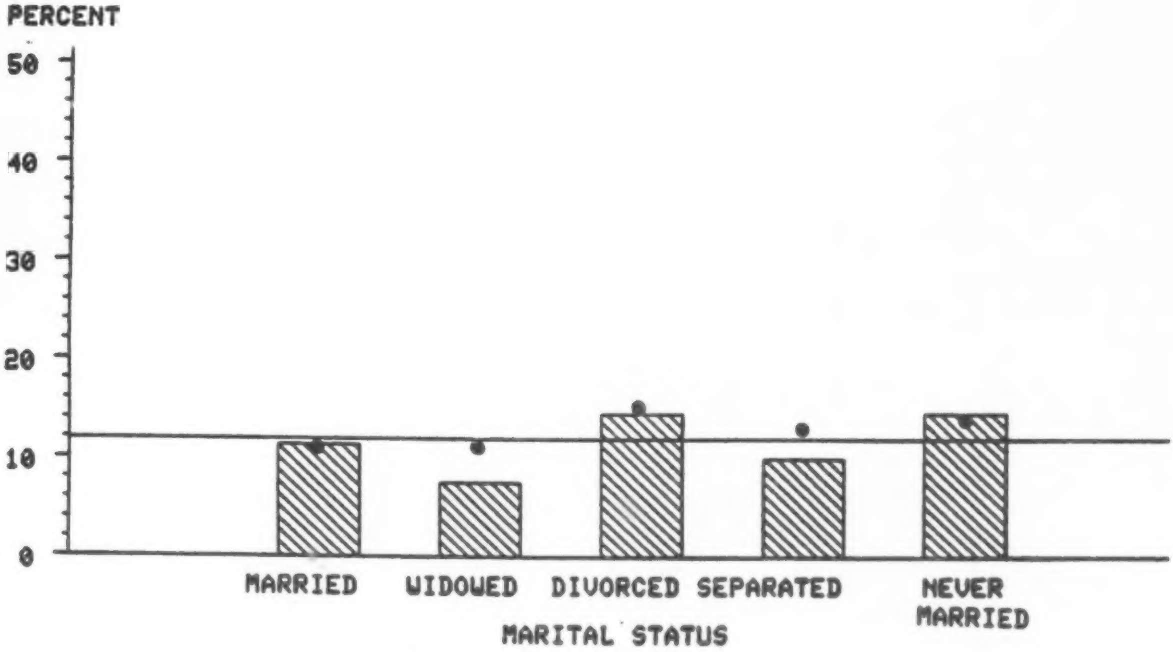


The highest rates for attending plays are in the Northeast and West. An approximately average rate is found in the Northcentral area, while the lowest rate is found in the South.

After adjustments for other background factors, the difference between the West and South diminishes, suggesting that the initial difference was at least partially due to other factors, possibly differential educational achievement.

ATTEND PLAYS BY MARITAL STATUS

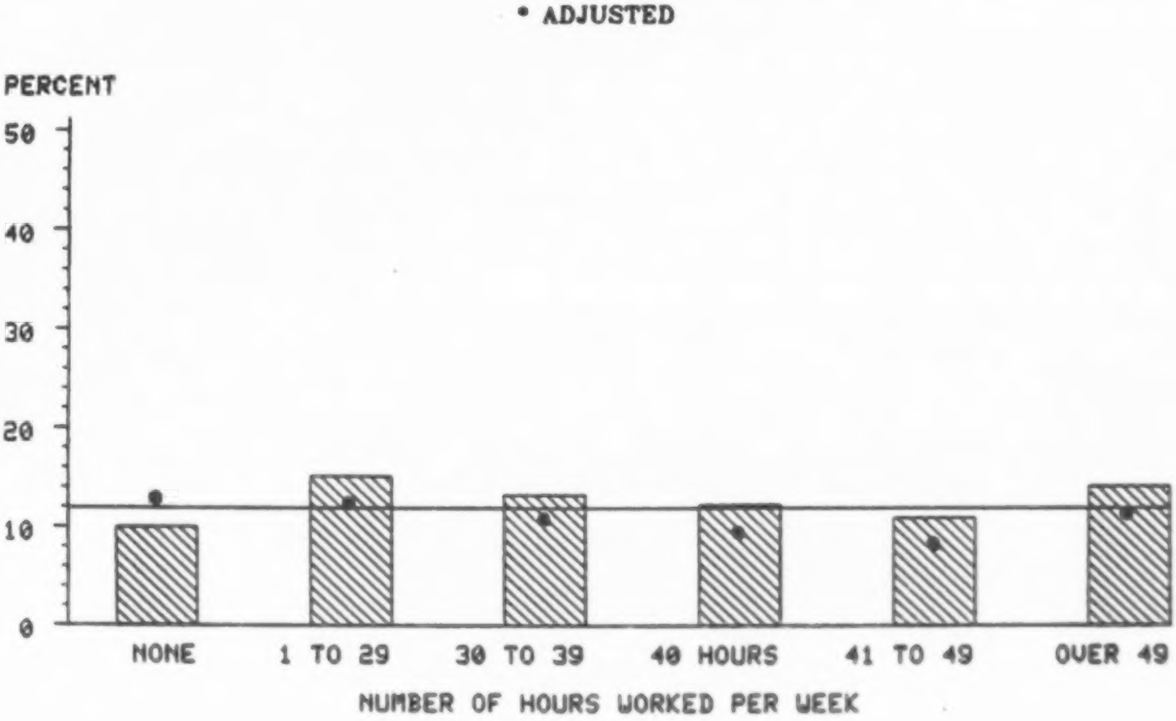
• ADJUSTED



Divorced and never married persons are most likely to attend plays. On the other hand, separated spouses and widowed people attend at below average rates.

After adjusting for the impact of other factors, widows and separated spouses have much higher rates. Their originally lower rates were apparently suppressed by other factors like age and income.

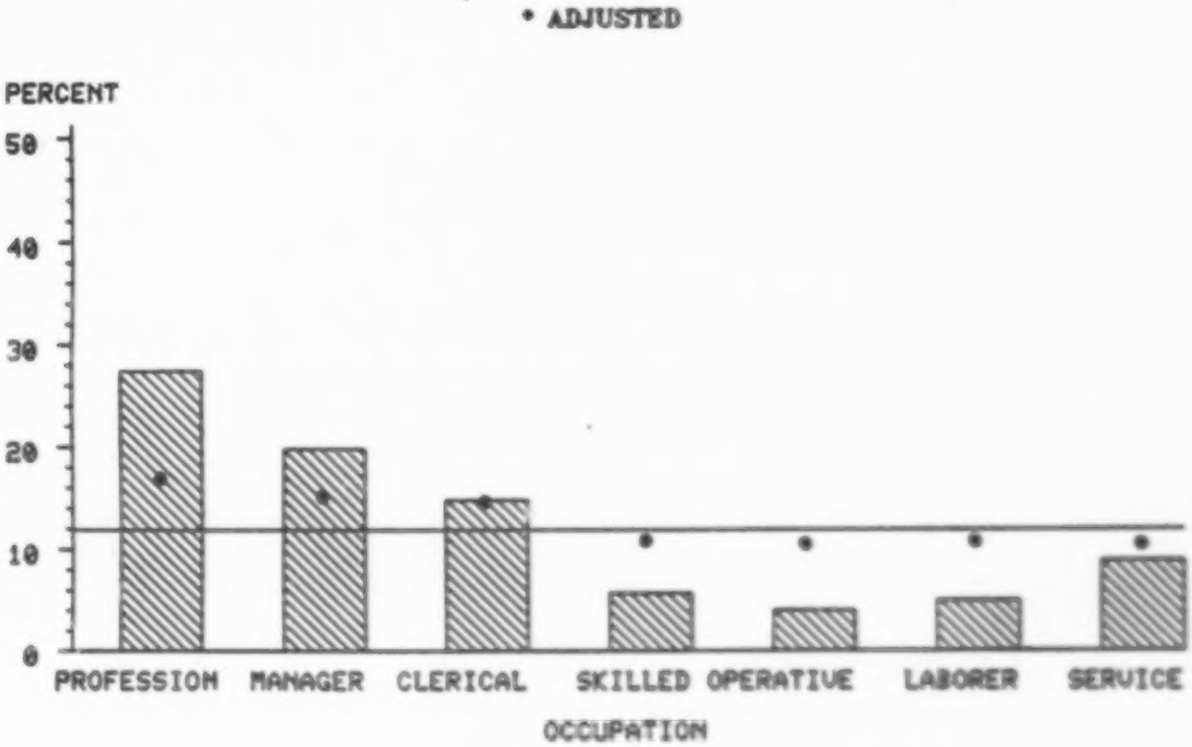
ATTEND PLAYS BY HOURS WORKED



Those not working show the lowest attendance rates. Those working fewer hours and those working more than 50 hours had higher attendance rates for plays.

When other factors are held constant, the curvilinear relation persists, but those not working any hours become the category most likely to attend, while all other groups show decreased attendance.

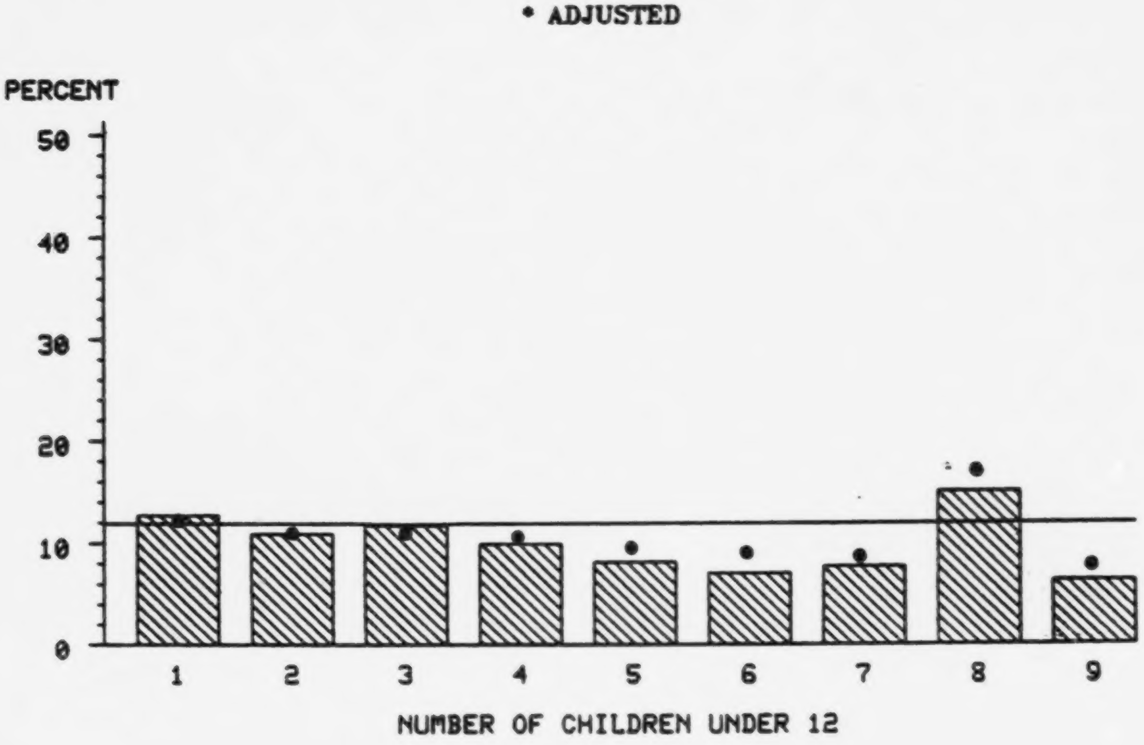
ATTEND PLAYS BY OCCUPATION



Professionals, managers, sales and clerical workers, and students not shown in this figure (22.0%) are overrepresented in the audiences of plays. All other groups attend at below average rates.

After adjustment for other background variables, these differences diminish as all groups cluster nearer the national average. Student participation drops to 17.4%, but stays considerably above the national average. It is likely that differential income and education among occupational groups accounts for much of the original (unadjusted) association.

ATTEND PLAYS BY NUMBER OF CHILDREN



Presence of Children:
1 No children
2 One 6-11
3 Two + 6-11
4 One under 6
5 One 6-11, One under 6
6 One under 6, Two+ 6-11
7 Two+ under 6
8 One 6-11, Two+ under 6
9 Two + 6-11, Two+ under 6

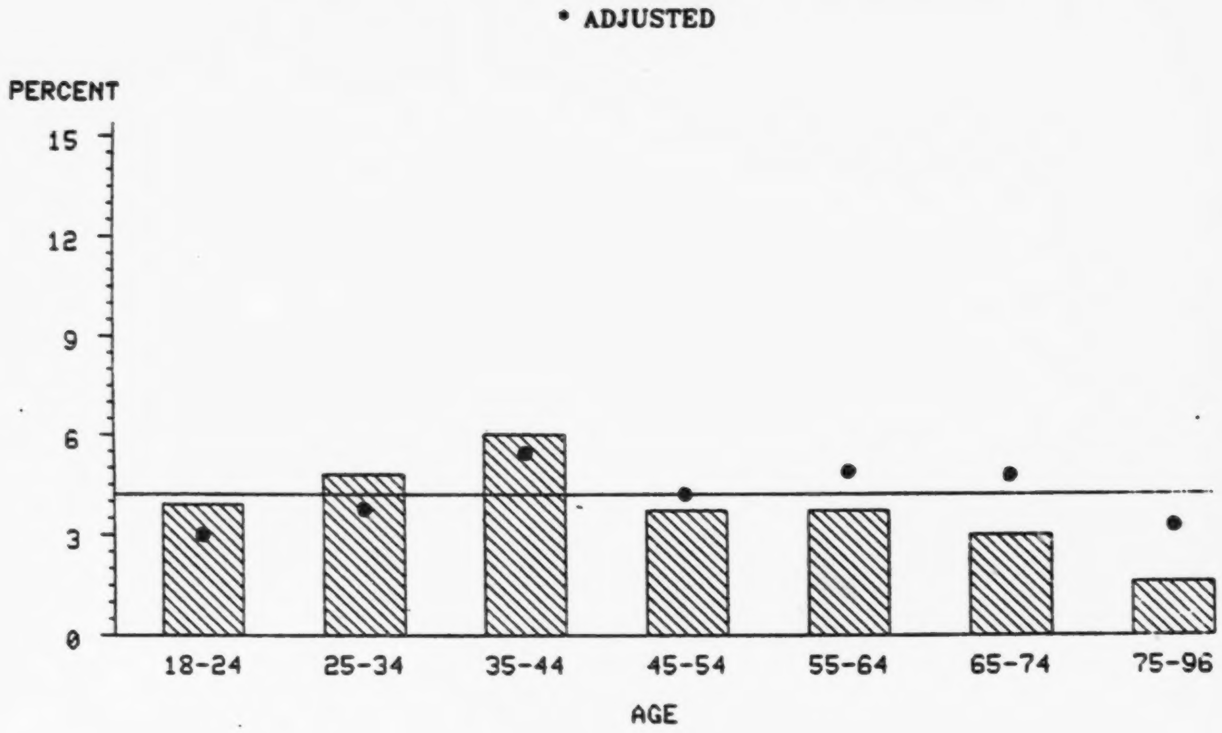
Compared to people without children in their households, people with children are generally less likely to attend plays. The one exception is the category of people with two children under 6 years of age and one older child; this group exceeds the attendance rate of people without children at home and shows the highest attendance rate of any category.

When other factors are controlled, the differences between individuals without children at home and those with children are considerably lessened (except for the category with two younger children and one older one). This means other factors like age were suppressing attendance of individuals with children at home in the original figures.

BALLET

The best predictors of attendance of ballet performances are education and occupation (variations of 12.8-8.8%). When other factors are held constant, education (11.0%) is still the most important predictor; sex, occupation, and number of children form a second tier of important predictors (4.7-4.1%).

ATTEND BALLETS BY AGE

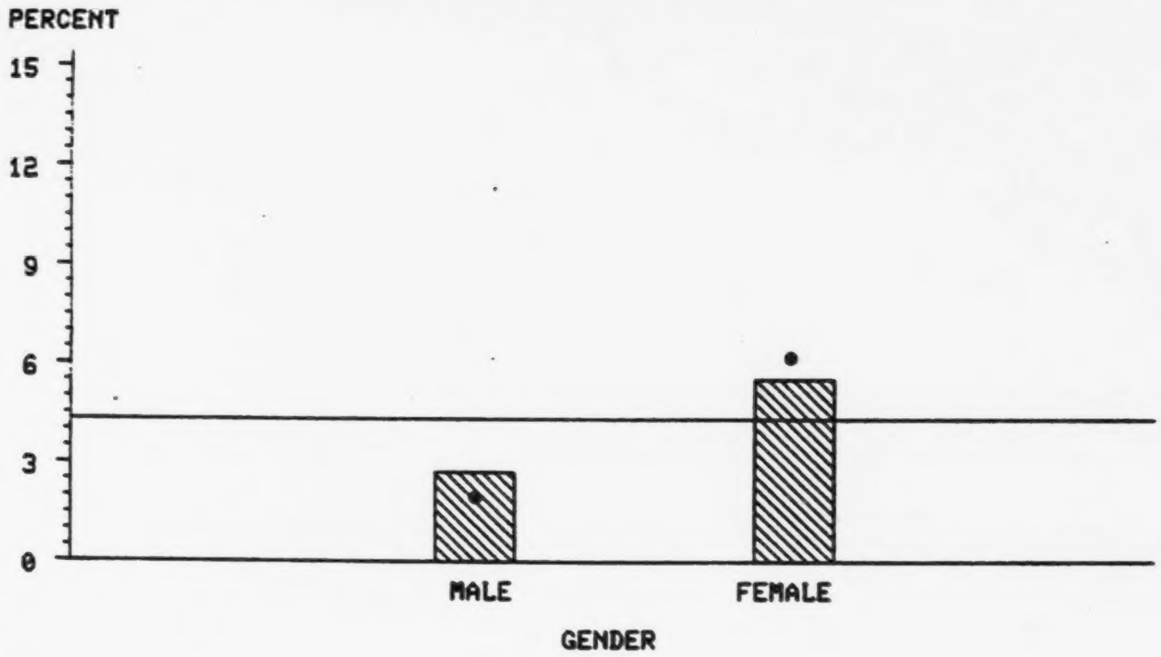


The attendance rate for ballet performances rises with age to almost one-and-a-half times the national average for those aged 35-44, then falls below the national average for older groups.

After adjustments for the impact of the other factors, these differences between age groups are lessened and, except for the highest age category, match or exceed the national average. The lower educational and income levels of the oldest categories might have suppressed their attendance in the original unadjusted rates.

ATTEND BALLETS BY GENDER

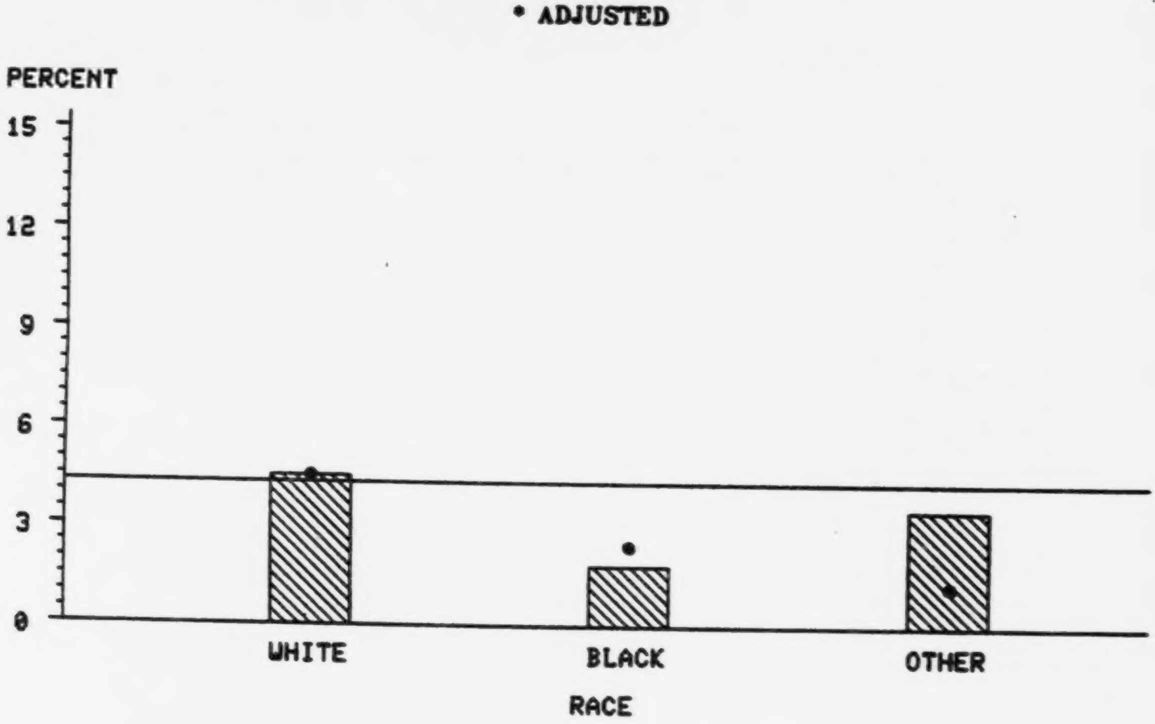
● ADJUSTED



Women attend ballet at a much higher rate than men, with men attending at about one-half the national average and women attending at about one-and-one-quarter the national average.

When other factors are controlled, gender becomes an even stronger predictor of attendance. Indeed, it moves from the eighth to the second best predictor of ballet attendance. The lower education and income levels of women may have suppressed attendance, and statistical controls demonstrate the strength of the association between sex and attendance at the ballet.

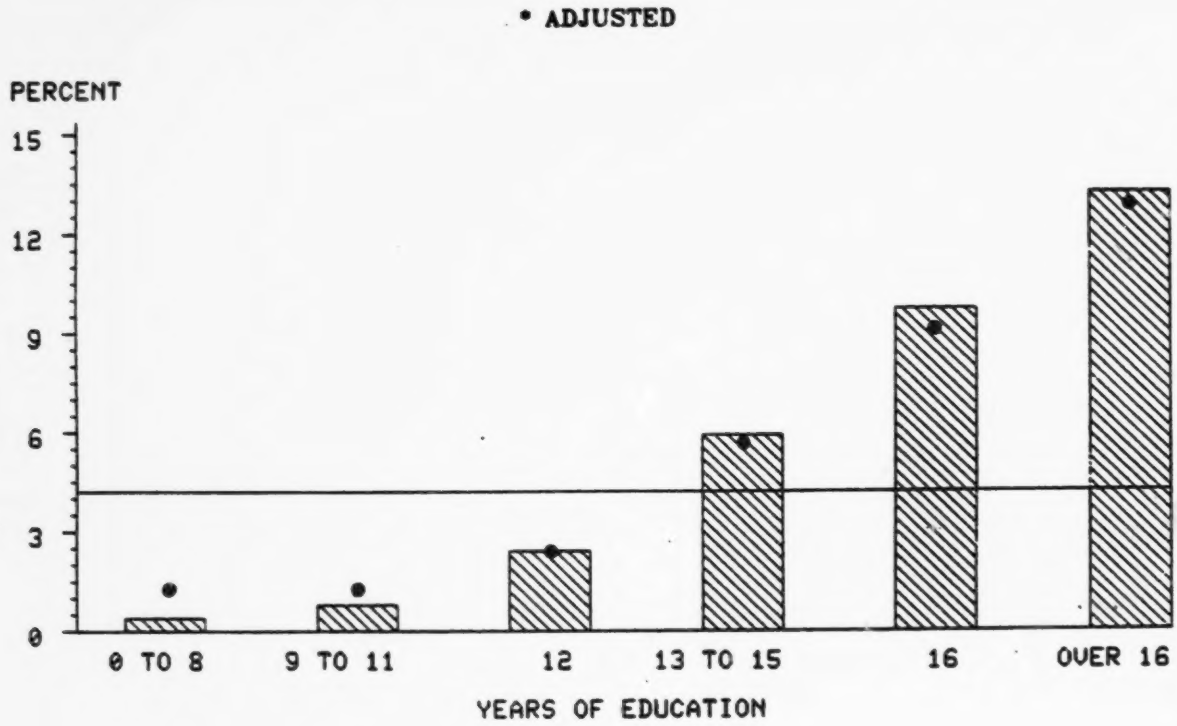
ATTEND BALLETS BY RACE



Whites and "other" races are respectively somewhat above and below average in attending ballet, whereas blacks attend at less than half the national average.

The most dramatic shift when other factors are held equal is that the attendance rates of "other" races is cut by roughly two-thirds, falling below blacks' rate which was slightly raised by the statistical adjustment. Other factors evidently play a large part in explaining the attendance rate for "other" races.

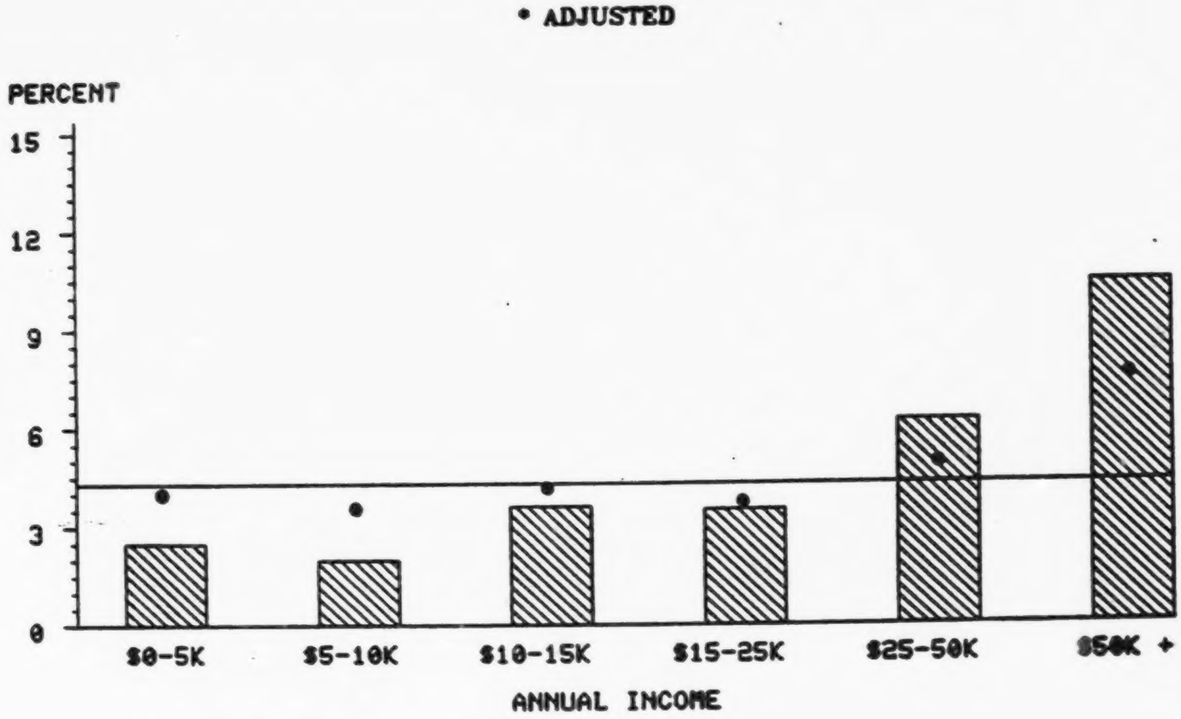
ATTEND BALLETS BY EDUCATION



Attendance of ballet performances occurs at progressively higher rates with increasing education. The extreme categories show great differences; those with only a grade school education attend at a tenth of the national average rate, while those who attended graduate school participate at a rate of three times the national average.

The trend is essentially the same after adjustment for the influence of the other factors, although the attendance rate for people with some college is considerably increased. Education again proves itself a powerful explanatory variable.

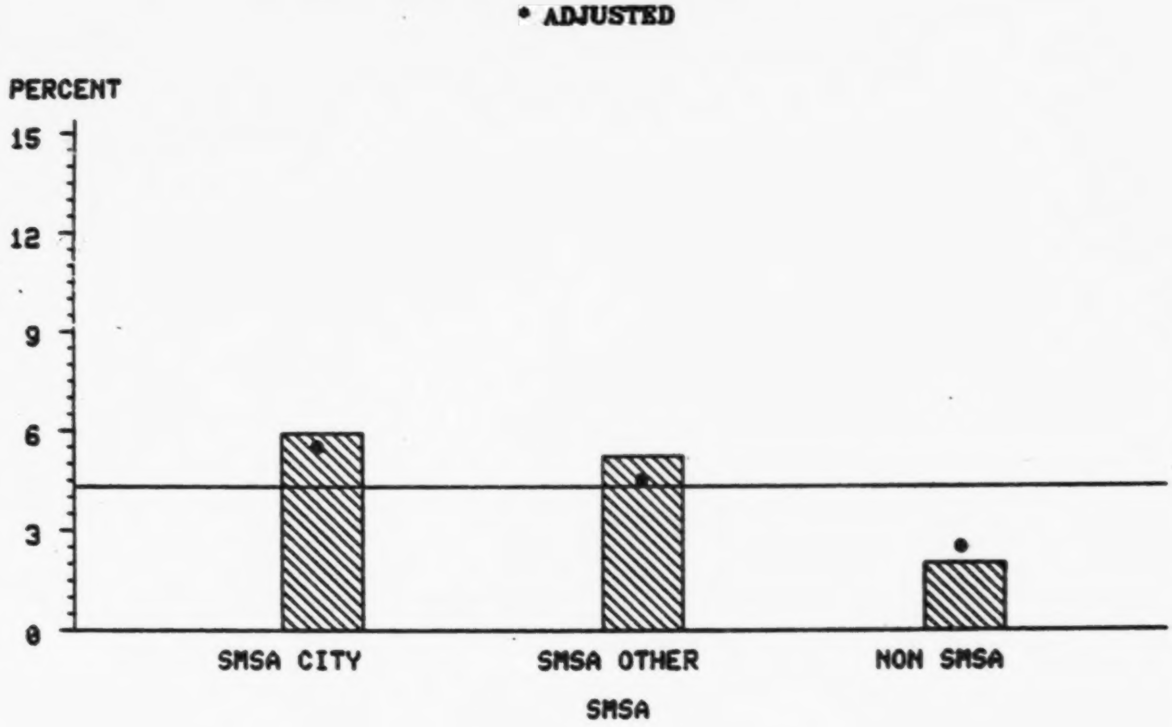
ATTEND BALLETS BY INCOME



The attendance rates for ballet performances generally rise among higher income brackets. Those earning $5,000-$9,999 attend at half of the national average rate, while those earning $50,000 and over attend at about one-and-a-half times the average rate.

Except for the highest income bracket, after the effects of the other factors are statistically removed, attendance rates are similar for all income brackets. Other factors somewhat suppress the attendance rate of those with lower incomes and, conversely, inflate the attendance rate of those with higher incomes. Education and its close association with income probably accounted for much of the apparent relationship between income and attendance. In general, income is only a good explanation of attendance when contrasting the highest bracket with all others.

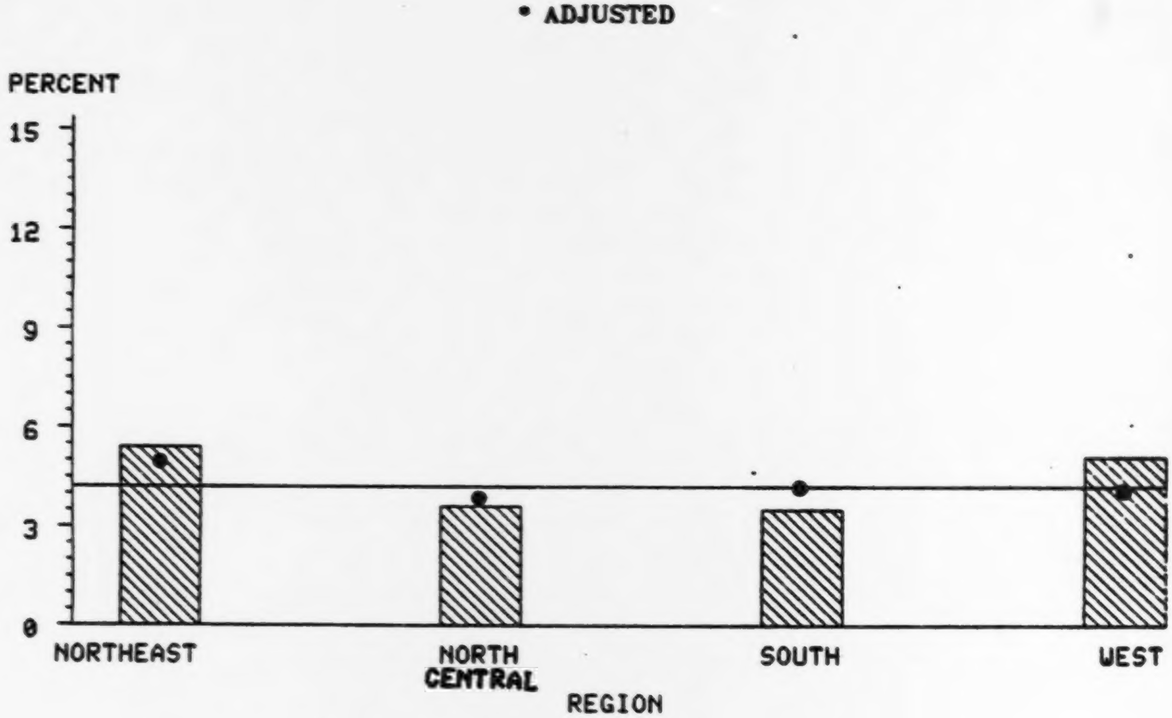
ATTEND BALLETS BY SMSA



Residents in SMSA's participate at about 1-2% above the national average. Those residing outside of SMSA's attend at about 2% below the national average.

When other factors are taken into account, these differences lessen. Those residing outside of central cities within SMSA's and those residing outside of SMSA's move closer to the national average. Nevertheless, those living outside of SMSA's attend ballet at clearly lower rates, which suggests that location has an effect on attendance that is independent of other background factors. As with opera, the availability of ballet performances is probably much greater in urban than in rural areas.

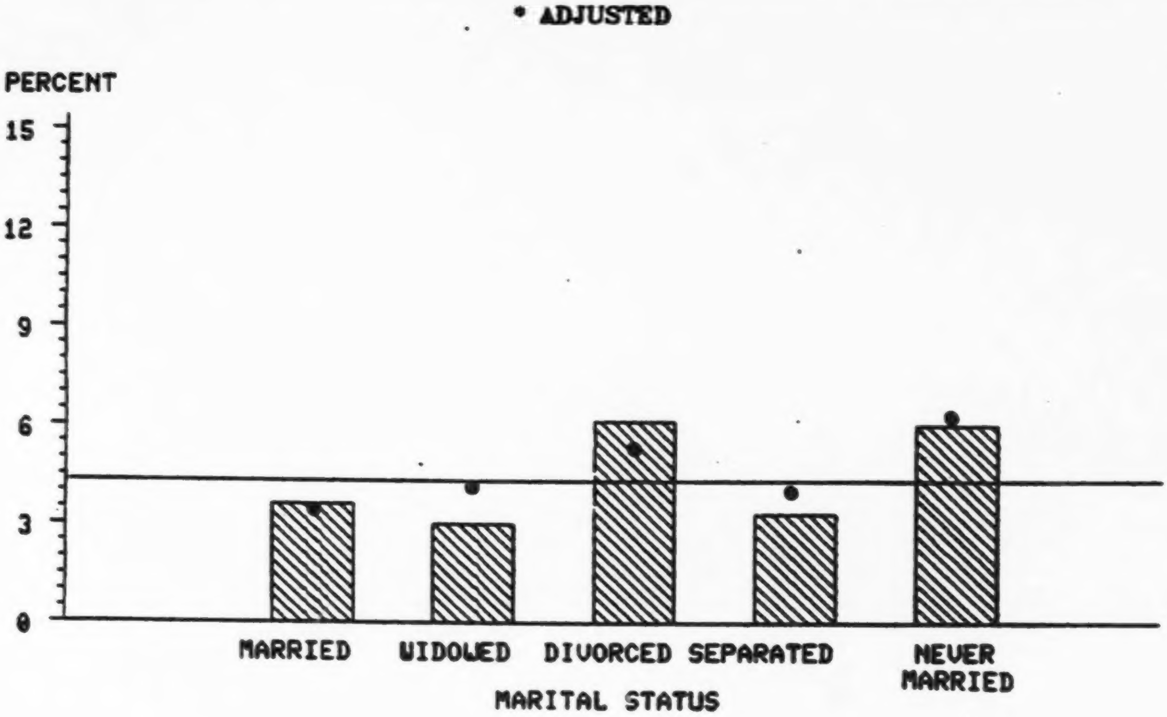
ATTEND BALLETS BY REGION



The Northeast and the West have higher attendance rates for ballet than the Northcentral area and South, which have almost equal rates slightly below the national average.

The influence of other factors accounts for much of the difference in rates between the South and the West, whose adjusted rates match the national average. In these regions, education or income might really account for different rates of participation, not region per se. On the other hand, in the Northeast and Northcentral regions, region itself still helps explain differences in attendance rates.

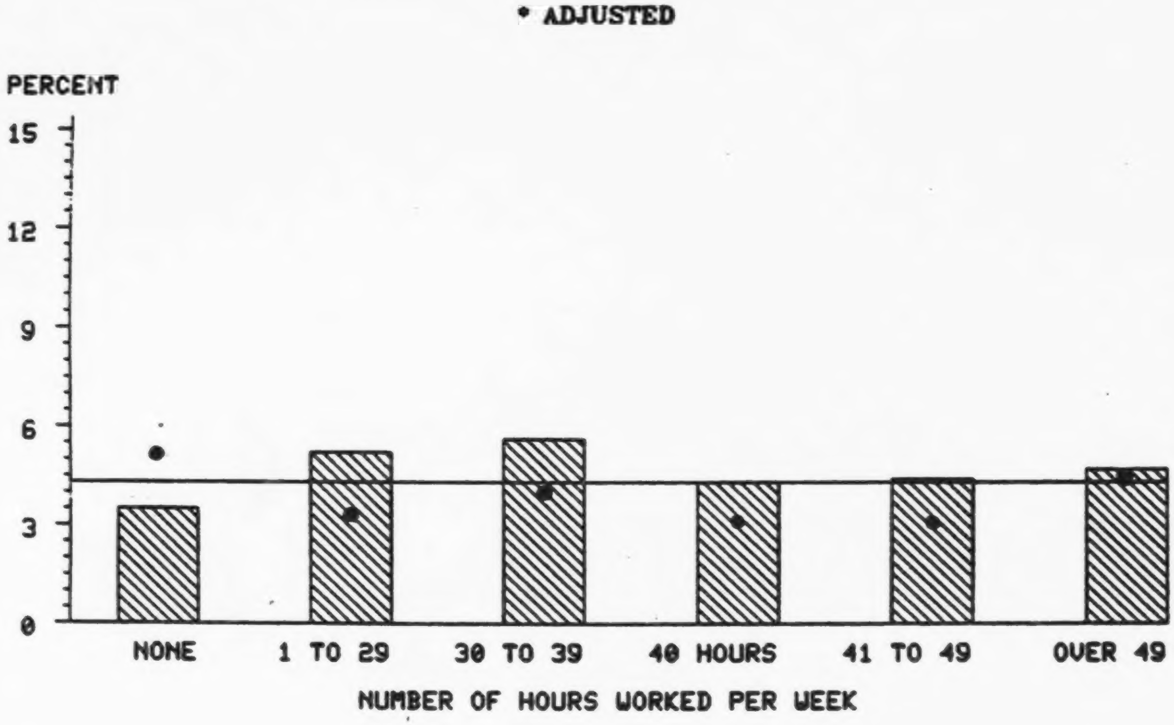
ATTEND BALLETS BY MARITAL STATUS



Those divorced and those never married are markedly more likely to attend ballet performances than those having other marital statuses, where attendance is slightly below the national average.

When other factors are held constant, the widowed and separated attend at rates approaching the national average, and divorced participation decreases slightly, indicating that other factors like income and age may have accounted for their initial low rates of attendance. However, attendance by those never married remains unchanged when other factors are taken into consideration.

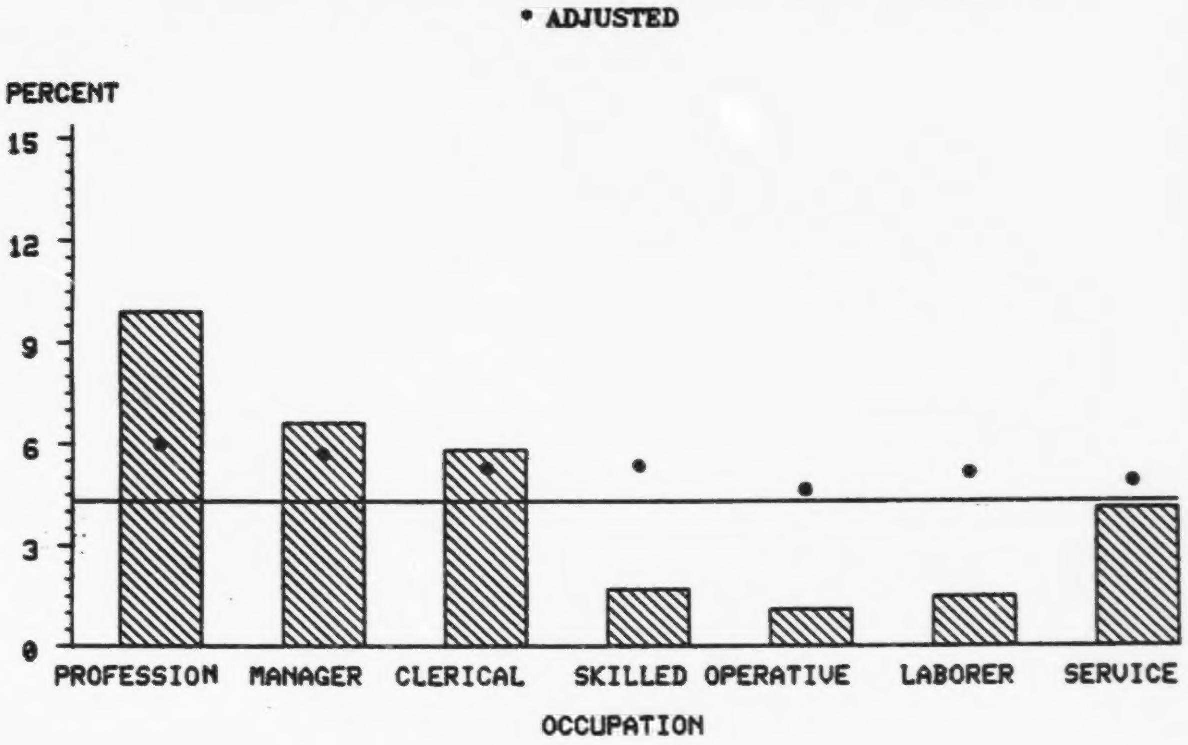
ATTEND BALLETS BY HOURS WORKED



Those working no hours are less likely than the average person to attend ballet performances; those working less than 40 hours are more likely than average to attend, while those working 50 hours or more attend at about average rates.

If other factors are equalized, however, those working no hours would attend at the highest rate. Possibly, this group's lower income was acting to suppress their attendance before statistical adjustments were made. Other categories show less attendance when other background factors are controlled for.

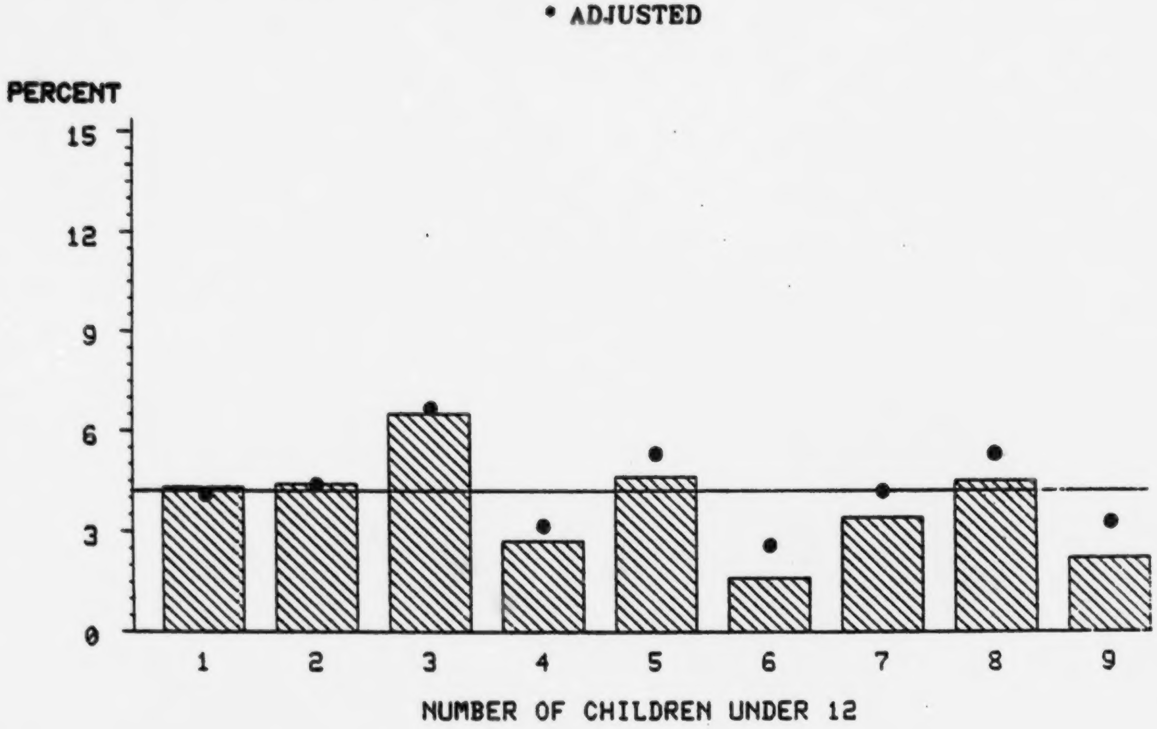
ATTEND BALLETS BY OCCUPATION



Among professionals, managers, sales and clerical workers, attendance at the ballet occurs at the highest rates. Students, not shown above also attend at a high rate (7.2%). On the other hand, blue-collar occupational groups attend at below average rates, as do other categories not shown above: those not working (3.5%), housekeepers (3.2%), and the retired (2.2%).

However, when other background factors are controlled for, professionals, managers, and students (4.5%, not shown above) show lesser attendance rates, while blue-collar employees, service workers, and retired people (4.1% not shown above) rise to meet or exceed the national average. Only the unemployed and homemakers remain below average after statistical adjustments are made (at 3.3% and 1.7% respectively). Income and education are likely to account for this pattern of findings.

ATTEND BALLETS BY NUMBER OF CHILDREN



Presence of Children:

1 No children
2 One 6-11
3 Two + 6-11
4 One under 6
5 One 6-11, One under 6
6 One under 6, Two+ 6-11
7 Two+ under 6
8 One 6-11, Two+ under 6
9 Two + 6-11, Two+ under 6

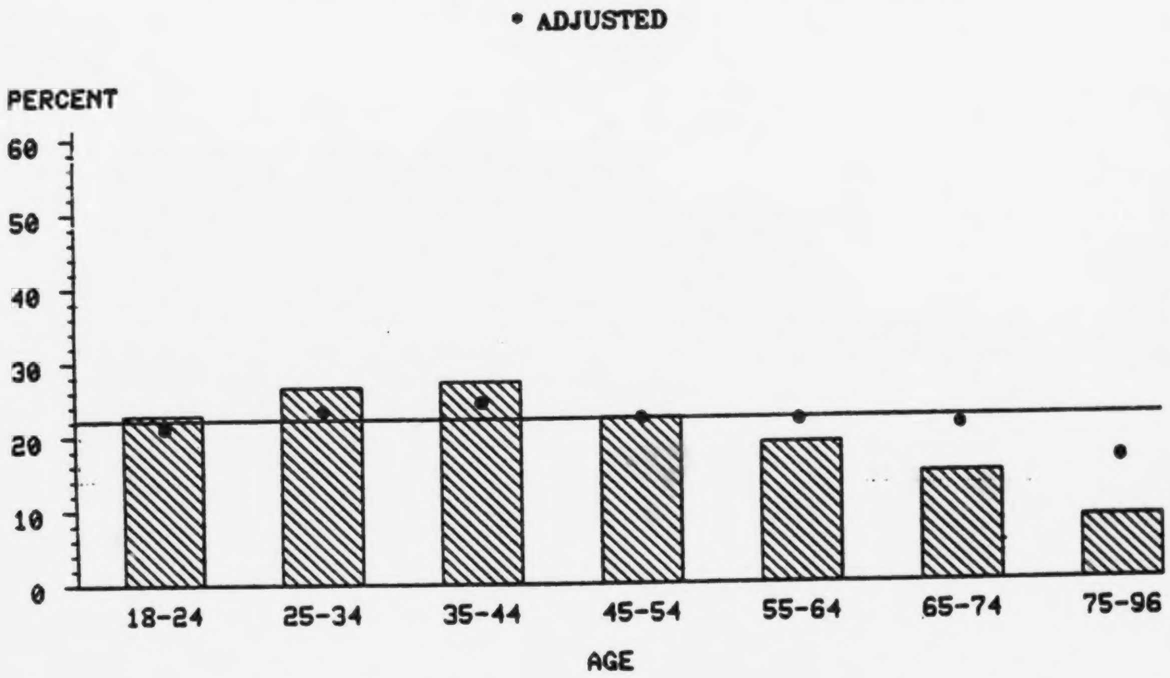
Those with no children have an average attendance rate. Although those with children show great variation above and below the average rate, those persons with very young children tend to have the lowest rates.

If other factors are held constant, the same general pattern appears although the attendance rates for those with children tend to increase relative to the average. Presence of children generally inhibits attendance at the ballet, although this relationship is complex and other background factors like sex and occupation also influence attendance.

ART GALLERIES AND MUSEUMS

The best predictors of attendance of art museums are education, occupation, and income (variations of 53.2-35.4%). After adjustment for other factors, the best predictors are education and occupation (variations of 43.9-14.6%).

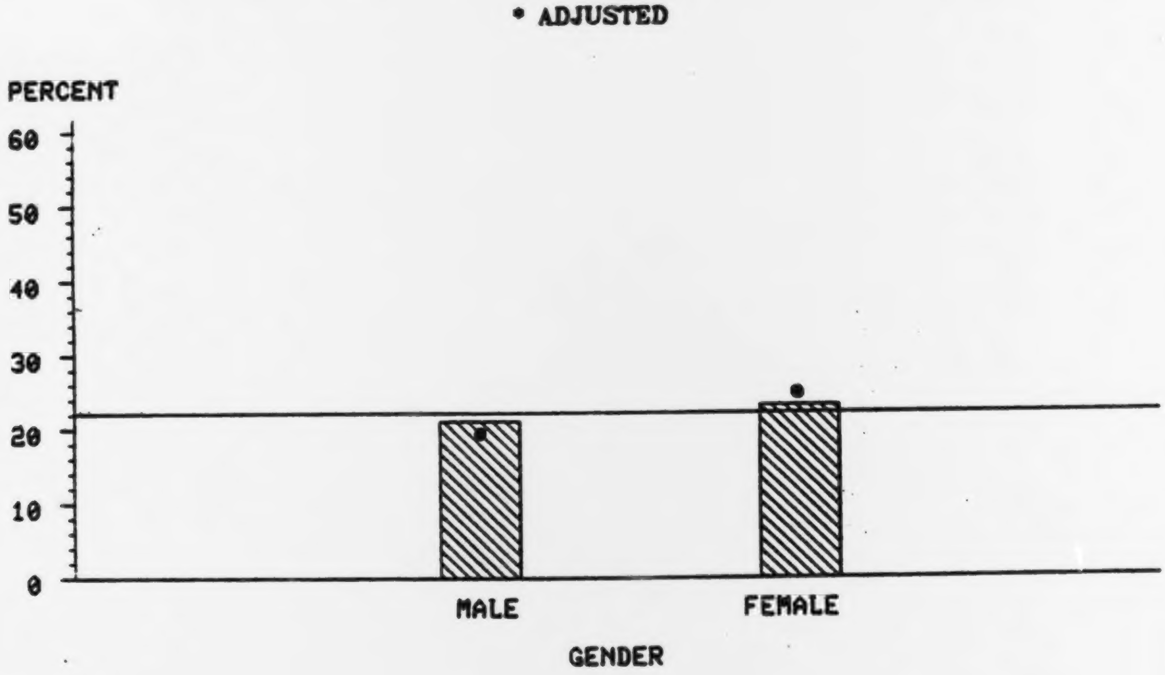
VISIT ART MUSEUMS BY AGE



People between the ages of 25 and 44 are most likely to visit art museums or galleries, while persons over the age of 55 years are least likely.

When the influence of other factors is removed, the curvilinear trend persists, but in an attenuated form. Much of the attendance rate differences between age groups is then attributable to other background factors, such as differential education and income.

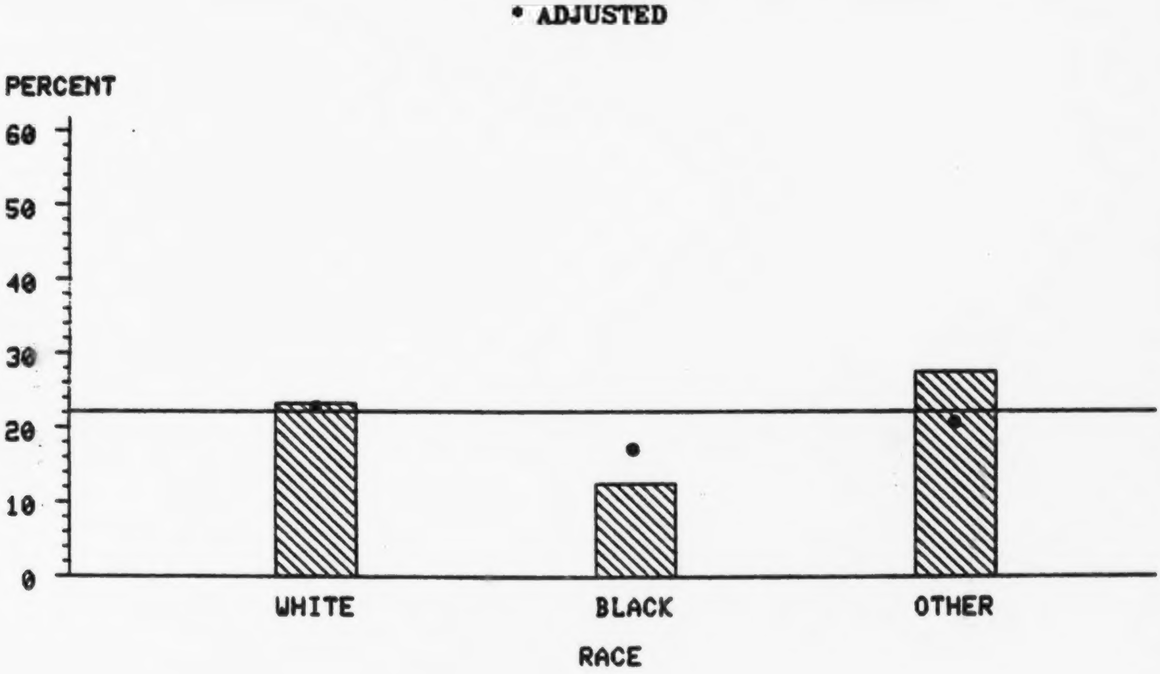
VISIT ART MUSEUMS BY GENDER



Although females attend at a higher rate than males, the difference is not great.

When other background factors are held constant, the difference increases to a 5% greater attendance by females. This means that the reasons behind women's greater likelihood of visiting art museums are independent of (indeed, suppressed by) other factors associated with gender, such as income and education.

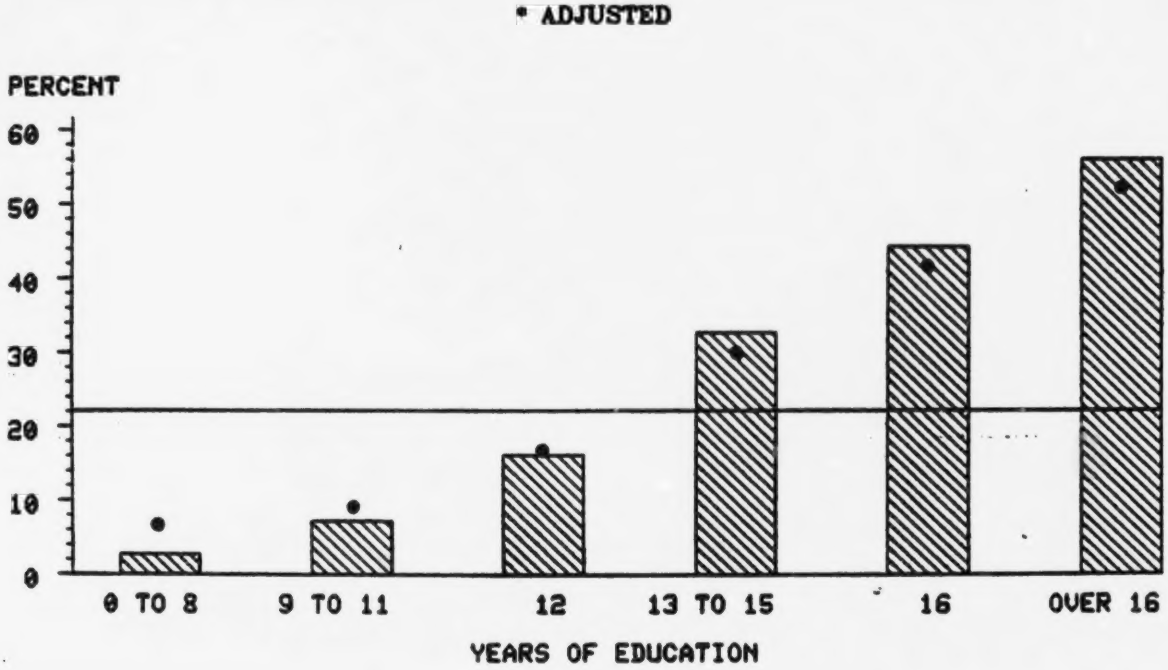
VISIT ART MUSEUMS BY RACE



Whites attend museums at about the national average; blacks at approximately half of the national average; "other" races attend at the highest rate, about 5% above the national average.

When the effects of the other factors are removed, the rate for "other" races falls slightly below the national average, a drop which suggests that their high rate is explained by other factors. White participation remains unchanged by the statistical controls and blacks participation moves closer to the national average.

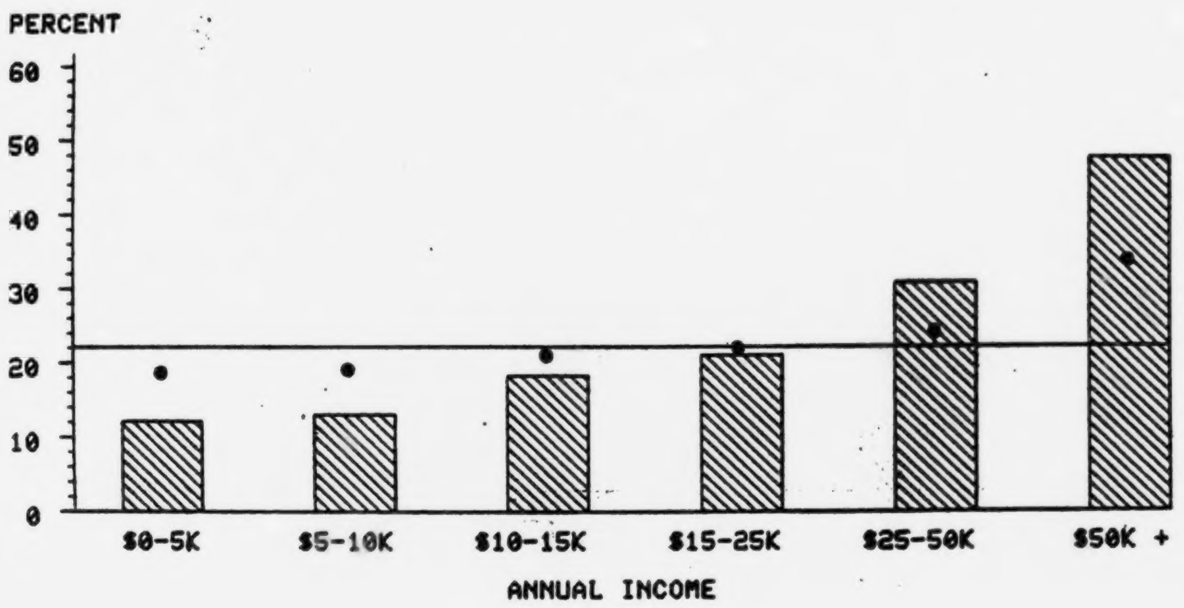
VISIT ART MUSEUMS BY EDUCATION



With increasing education, the attendance rates at museums rise sharply. The rates rise from a low (about one-seventh of the average) for those with only a grade school education to a high with those who attended graduate school (approximately two-and-one-half times the national average).

The overall pattern is essentially the same after adjusting for the effects of other factors. Thus, education is both a strong predictor and an important explanatory factor in art museum attendance.

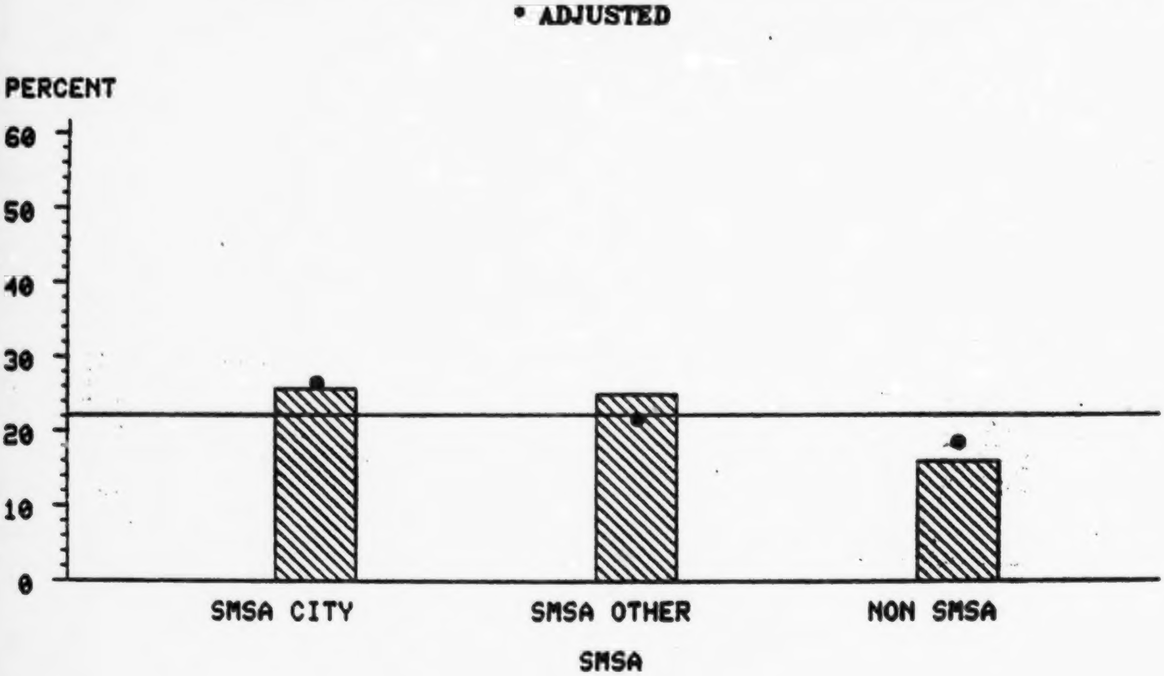
VISIT ART MUSEUMS BY INCOME



Attendance rates climb with income. The relationship is strong, with those earning under $5,000 attending at a rate of roughly one-half of the national average and those earning $50,000 at one-and-a-half times the average rate. There is an especially large increase with the $50,000+ category.

However, much of this variation is attributable to other associated factors, as the adjustment for other background factors reveals. Nevertheless, the positive relationship remains after controlling for these factors, although it is considerably weaker.

VISIT ART MUSEUMS BY SMSA

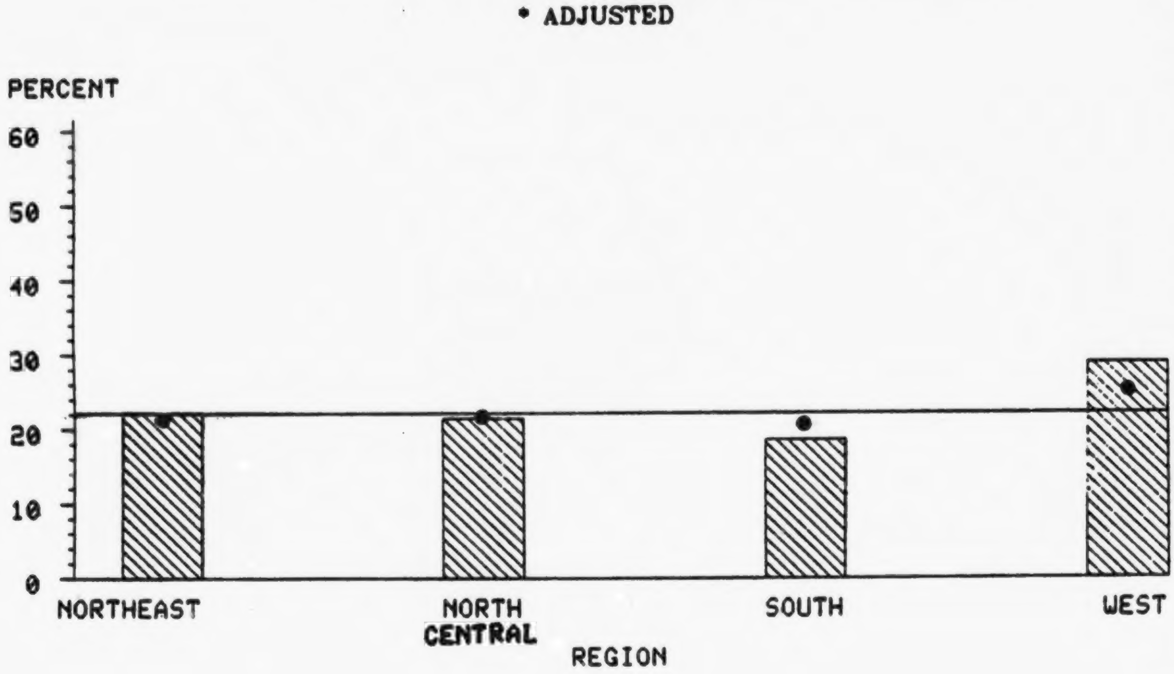


Within SMSA's, the attendance rates for those living within versus outside of the central city differ little. Those residing outside of SMSA's, however, attend at a considerably lower rate, probably due to difficulty of access to art museums and galleries.

When the other factors are held constant, the attendance rate of those living in SMSA's but outside of central cities falls slightly below the national average, while the rate of those living outside of SMSA's moves noticeably toward the average.

This means that some of the apparent differences between urban and nonurban attendance are attributable to other factors like income and education which tend to be higher in suburban areas.

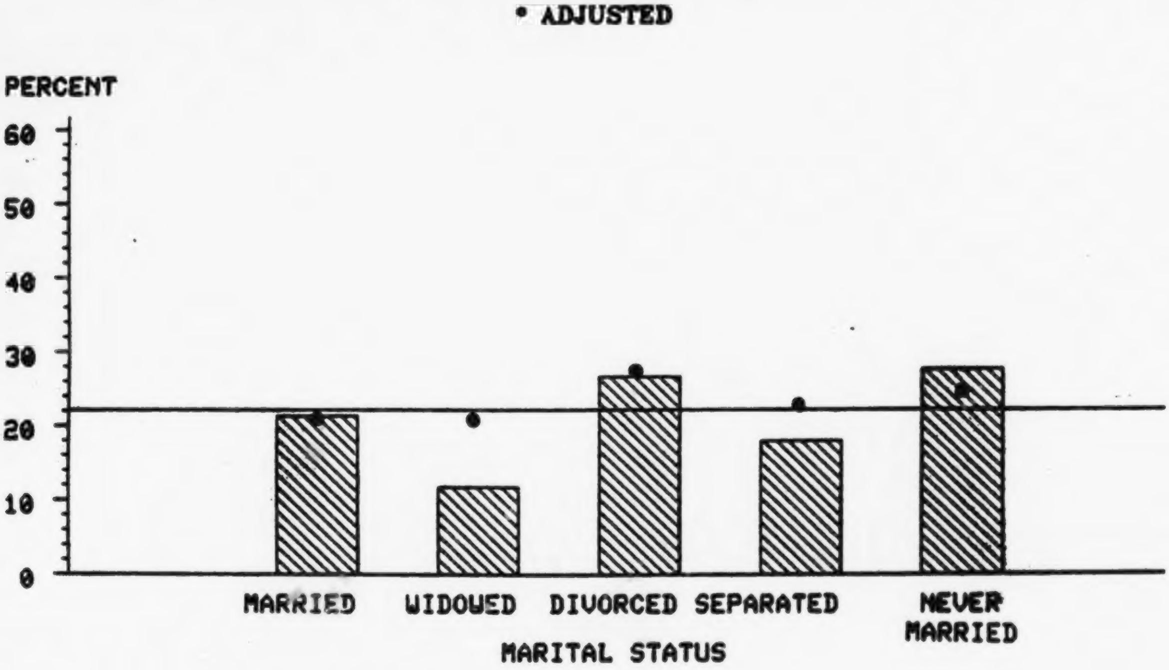
VISIT ART MUSEUMS BY REGION



The West has a markedly high visitation rate for art displays. The Northeast and the Northcentral have rates that roughly approximate the average rate, while the South has a lower than average rate.

However, when other factors are held constant, the attendance rates for the three regions are quite similar, while the Western rate remains relatively high. The high rate of attendance in the West isn't attributable to other other factors and living in the West seems to have some explanatory power of its own.

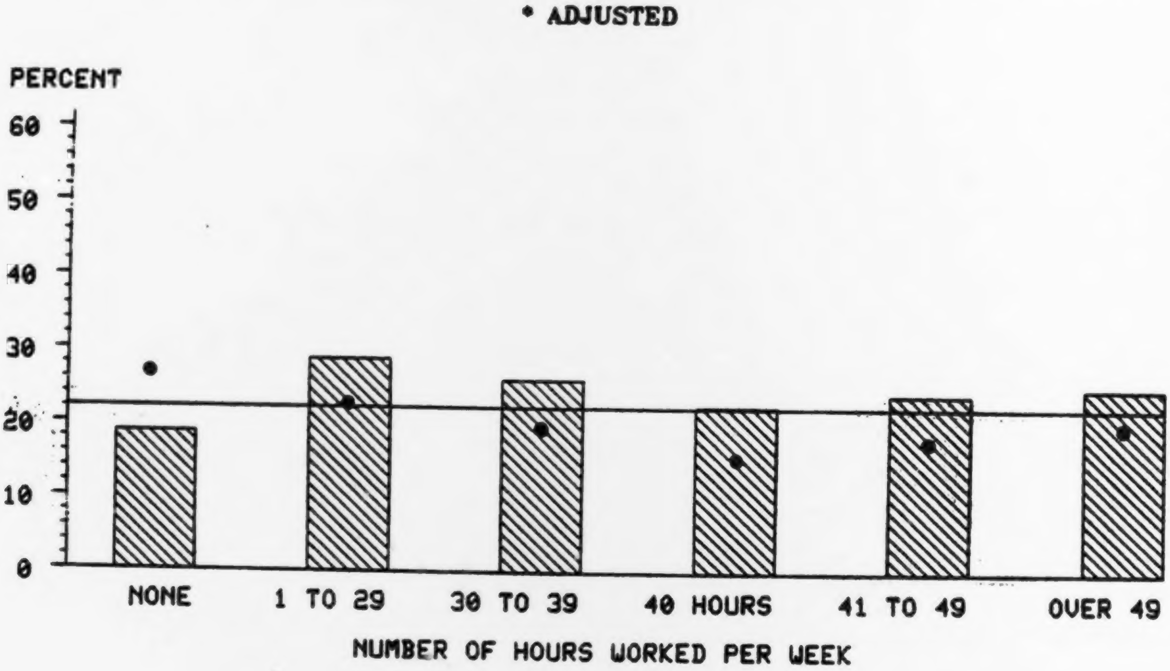
VISIT ART MUSEUMS BY MARITAL STATUS



Those divorced and those never married have the highest attendance rates for art displays. At the other extreme, those widowed or separated are considerably less likely than average to attend.

The impact of other factors accounts for much of the lower rates for the widowed and separated, as shown by considerably higher rates after adjustment. Lower income, for example, might at least partially account for the originally low rates for these two groups.

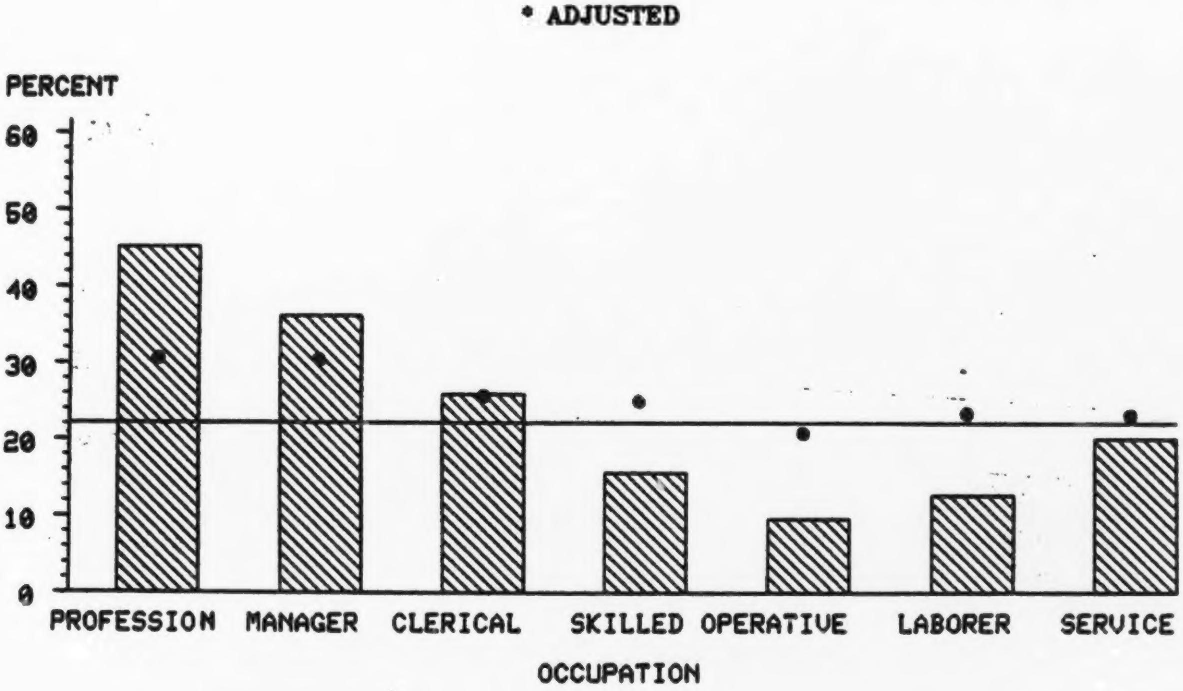
VISIT ART MUSEUMS BY HOURS WORKED



Part-time workers have the highest rates of attendance; those working 40 hours meet the national average, but have the lowest rate among all working groups. Only those not working attend at less than the national average.

However, after controlling for other factors, this pattern changes. Attendance for non-workers rises sharply, indicating factors like income might suppress attendance in the unadjusted figures, while rates fall for all other groups.

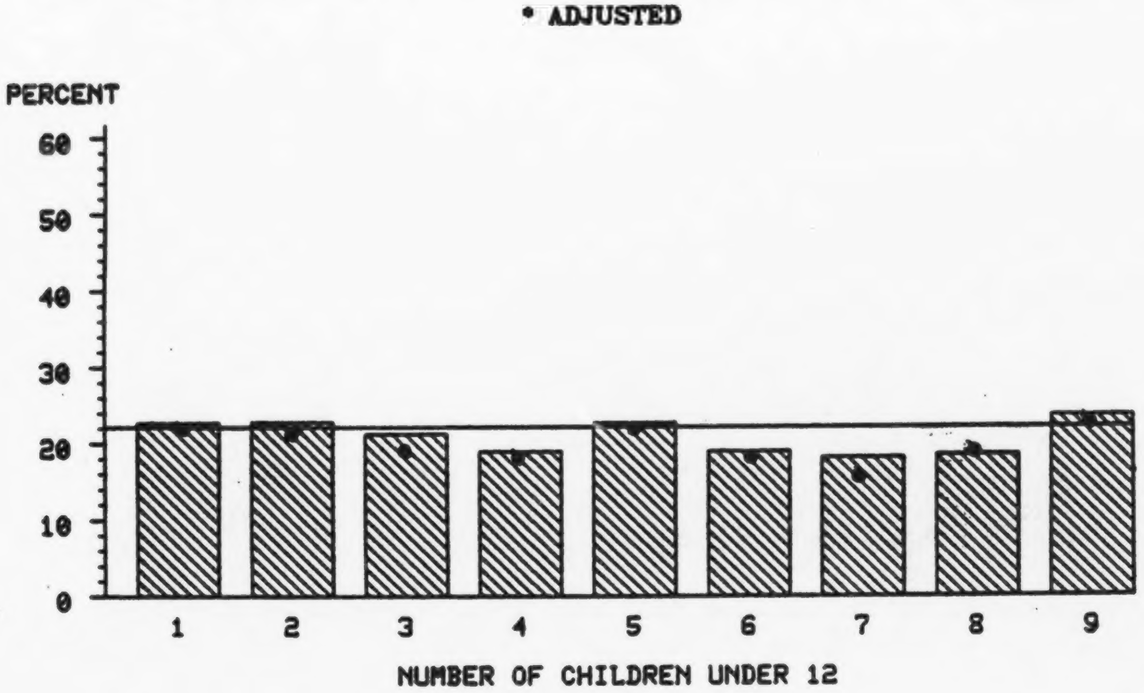
VISIT ART MUSEUMS BY OCCUPATION



Professionals and managers, visit art museums and galleries at markedly higher rates than other occupational categories as do students, not shown in this figure (35.9%). However, blue-collar workers fall considerably below the national average, and two additional groups not shown above, the retired (12.8%) and housekeepers (16.4%), also visit museums at lower than average rates.

Adjustments for the effects of other background factors noticeably decreases these occupational differences, although homemakers and retired people still fall below the national average (at 15.8% and 16.9% respctively). The original occupational differences were probably more directly related to income and education levels than to occupation itself.

VISIT ART MUSEUMS BY NUMBER OF CHILDREN



Presence of Children:
1 No children
2 One 6-11
3 Two + 6-11
4 One under 6
5 One 6-11, One under 6
6 One under 6, Two+ 6-11
7 Two+ under 6
8 One 6-11, Two+ under 6
9 Two + 6-11, Two+ under 6

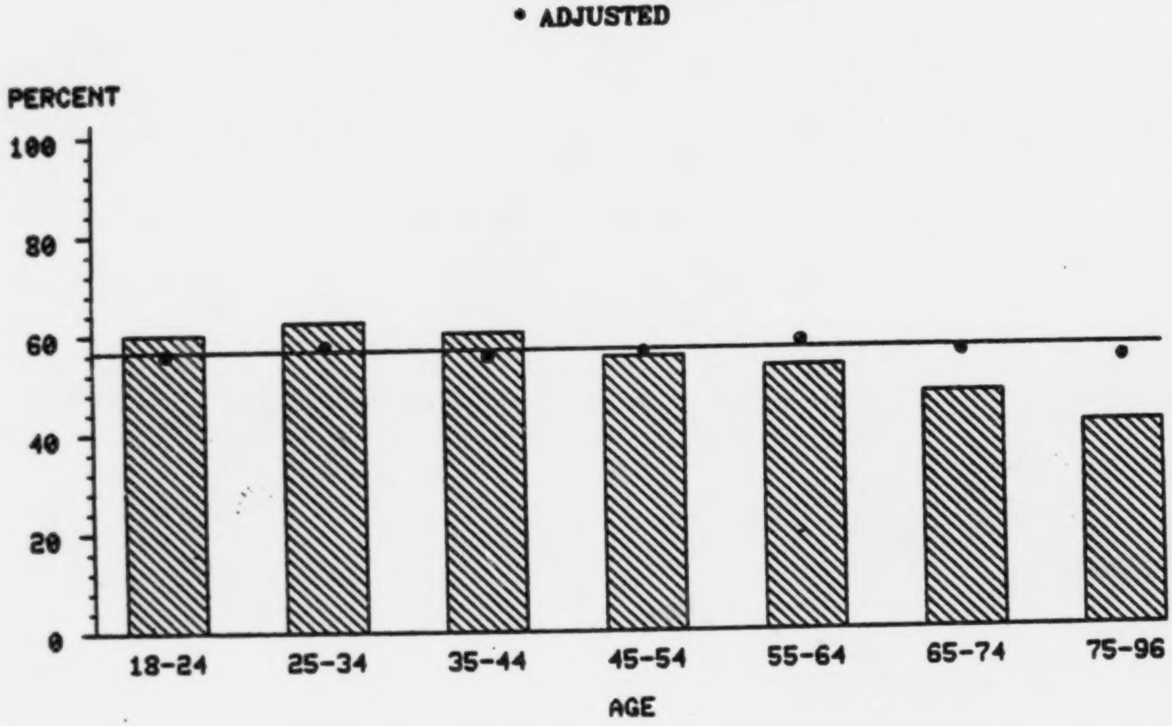
People without children in the household go to art displays at an average rate, while those with children under six tend to show a slightly lower rate of attendance. However in homes with very young children, the rate of attendance does not drop dramatically.

Controlling for other factors leaves this pattern largely unchanged, with only small differences between categories and the presence of children generally having only a slightly inhibiting effect on attendance.

READING OF NOVELS, SHORT STORIES, POETRY, OR PLAYS

Education, occupation, and income are the most important predictors of reading literature (variations of 64.1-29.5%). When other factors are held constant, education remains the single best predictor (variation of 58.2%); occupation, gender, and race become a second tier of important predictors (16.3-14.7%).

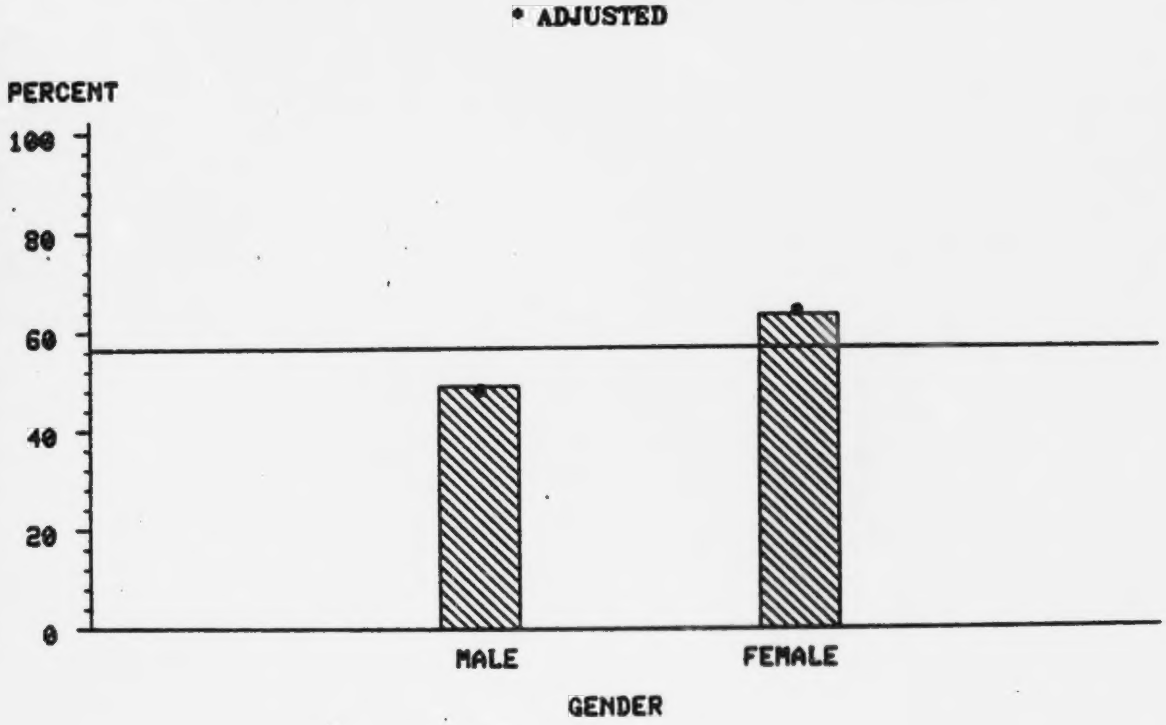
READING LITERATURE BY AGE



The reading of novels, short stories, poetry, or plays generally decreases with age, but is most prevalent among those aged 25-34. After age 45, reading levels progressively drop, until nearly 20% fewer people in the oldest group read literature in the past year.

Other associated factors tend to suppress the actual attendance rates of older individuals, and inflate the actual rates of younger persons. When these factors are controlled, age differences in reading literature appear slight, with most groups at or near the national average. Most likely, higher educational levels in younger groups accounted for the initial differences. Age itself offers a less direct explanation for reading habits.

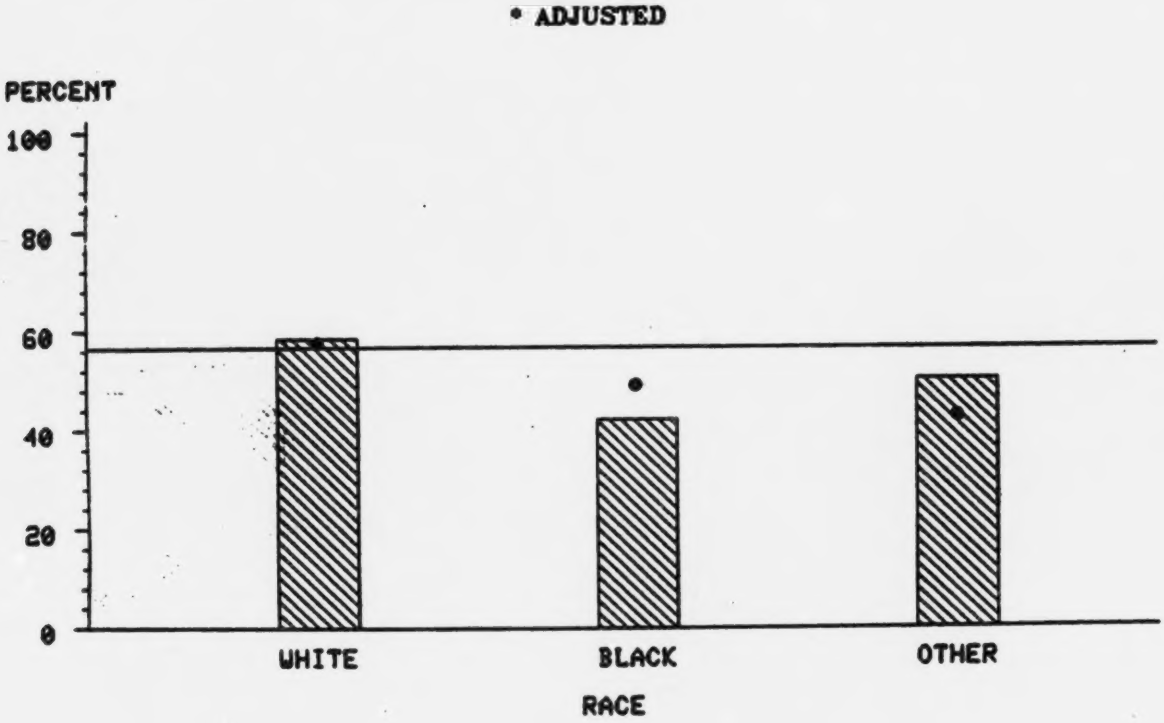
READING LITERATURE BY GENDER



Females are more likely than males to read literature.

Adjustment for the impact of other background factors does not substantially change the figures. The effect of gender on reading is relatively independent of the effects of the other background factors like education, income and occupation. Gender itself helps explain reading habits.

READING LITERATURE BY RACE

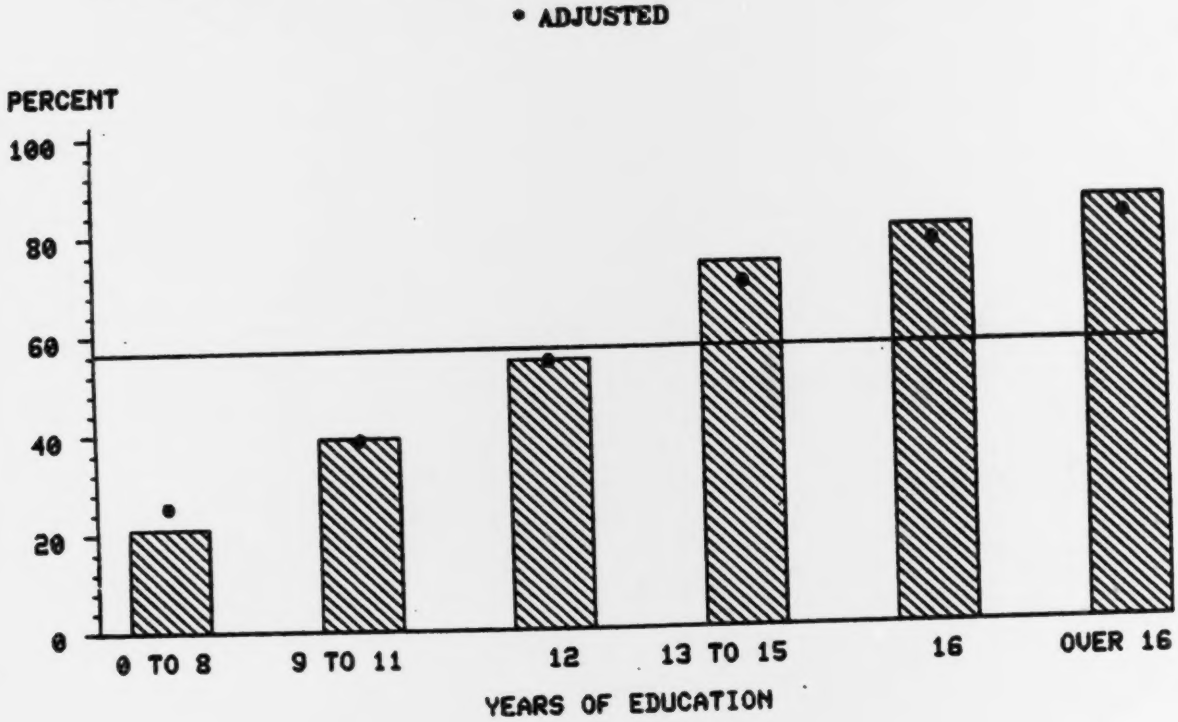


The percentage of whites reading literature is slightly above average; the percentage of blacks is 14% below the national average; the percentage of "other" races is intermediate, 6% below the national average.

When associated background factors are held constant, the rate for blacks rises, while "other" races show a decrease. Education is probably the crucial factor in deflating the unadjusted rate for blacks.

Adjusting for the impact of other background factors does not substantially change the white reading rate, but the black rate rises and "other" races show a decrease. Education might have been suppressing the unadjusted rate for blacks.

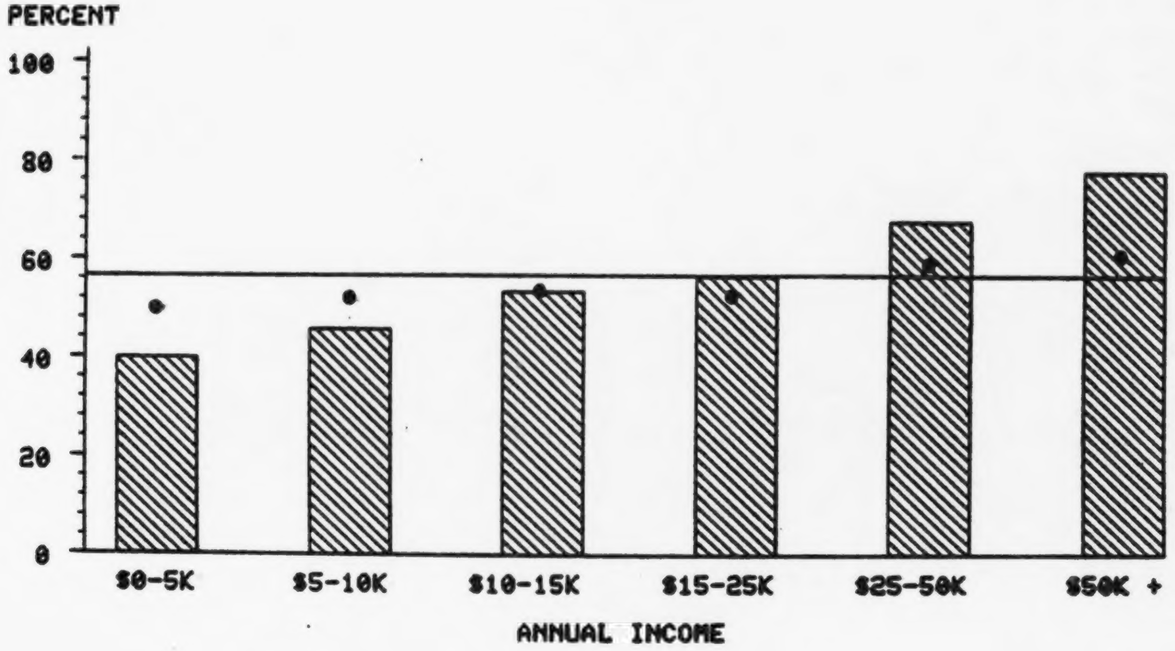
READING LITERATURE BY EDUCATION



Reading rate is strongly affected by level of education, rising rapidly with higher levels of education. Those who have only a grade school education are less than half as likely as the average person to read literature. In contrast, the proportion of literature readers among those who attended graduate school is one-and-a-half times the national average.

The pattern is little changed after adjusting for the effects of the other background factors. The linear relationship between education and reading persists, and education proves a strong factor in explaining rates of reading literature.

READING LITERATURE BY INCOME

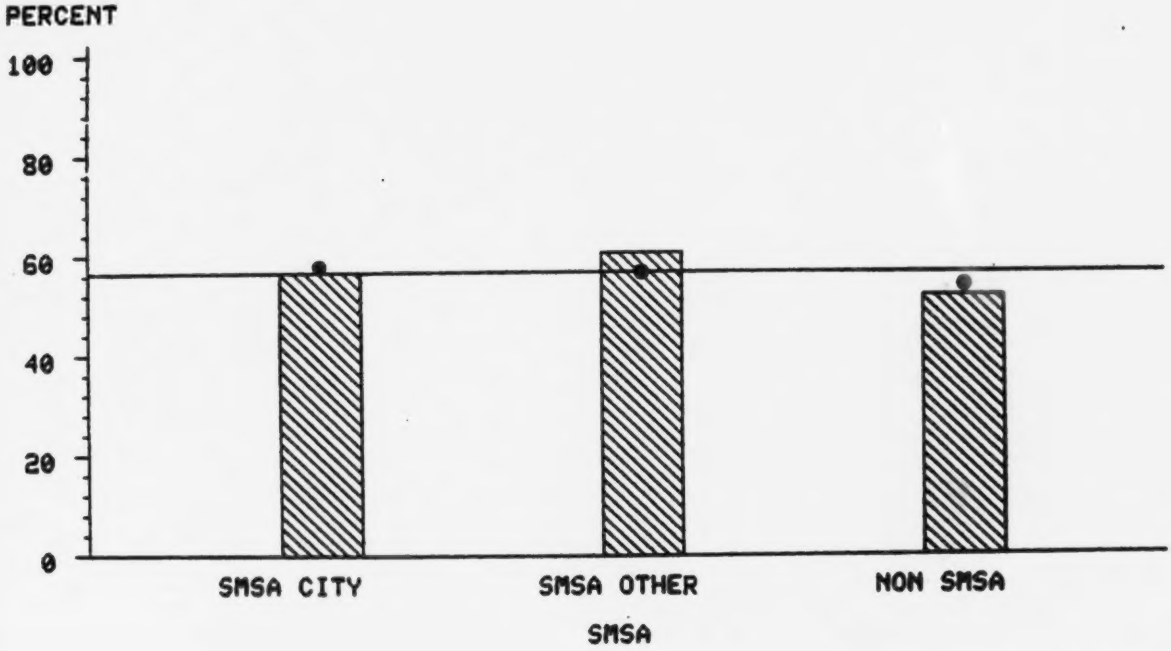


The percentage of the population who read literature rises with income, crossing the national average with those earning $25,000- $49,999. The differences for the income brackets is large, spanning 30%.

Adjustment for the influence of other factors moves the attendance rates considerably closer to the average, demonstrating that other related factors like gender and education underlie some of the original income differences. Income itself, however, still provides some explanation of reading rates.

READING LITERATURE BY SMSA

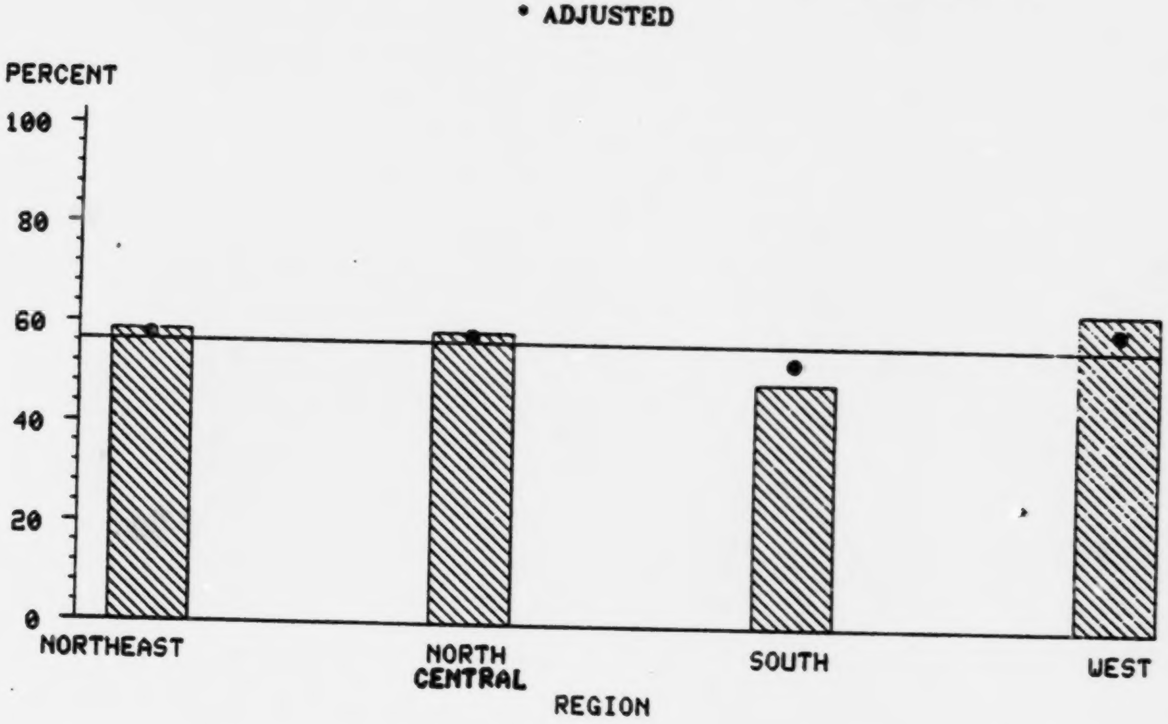
• ADJUSTED



Within SMSA's, the percentage of residents outside of the central city who read literature is greater than among people living in the central city. Those who reside outside of SMSA's have the lowest rate, but the differences between the three groups are not large.

These differences grow even smaller when other factors are controlled for. Educational levels (usually highest in the suburbs) probably accounted for the initial differences.

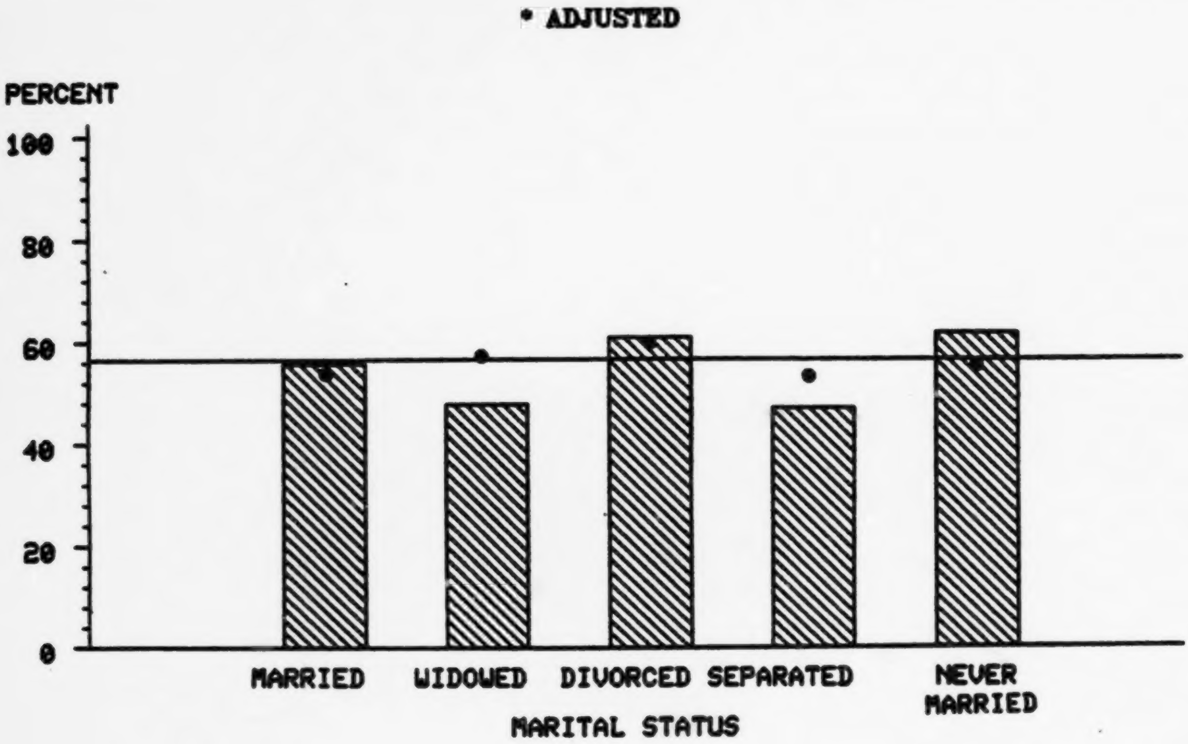
READING LITERATURE BY REGION



Northeast and Northcentral residents are slightly above the national average. Those in the West are considerably more likely than average to read literature, while those in the South are less likely, and fall below the national average.

About half of the difference in reading literature between residents of the West and of the South is due to the influence of other factors, but a clear regional difference remains evident even if these factors are held constant.

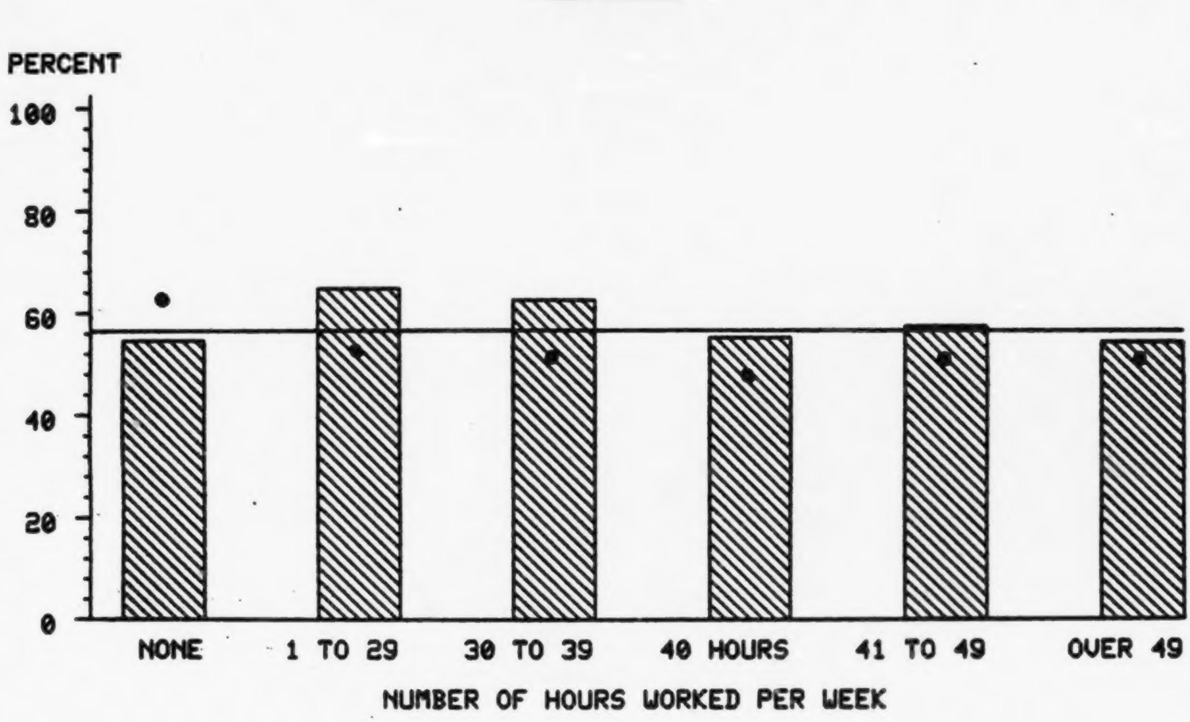
READING LITERATURE BY MARITAL STATUS



Those divorced and those never married have the highest reading rates; those widowed and those separated have lower than average rates; married individuals have an about average rate.

After adjustments for other factors, differences among marital statuses grow smaller, suggesting that other factors, such as income, may have accounted for the original variations.

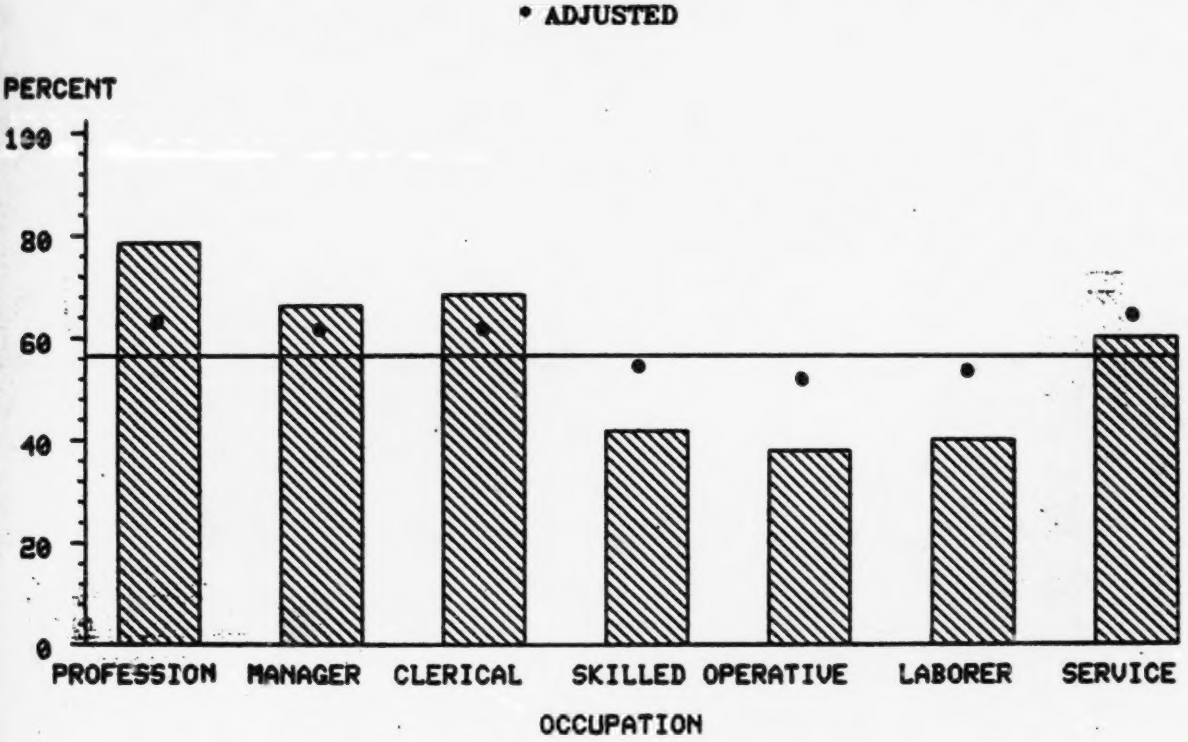
READING LITERATURE BY HOURS WORKED



Part-time workers (under 40 hours per week) tend to read literature more than any other group. All other categories read literature at a nearly average rate.

However, this changes when other background factors are controlled. Those not working now show the highest rate for reading literature; other factors were apparently suppressing their unadjusted reading rate. On the other hand, these factors were increasing apparent differences between working groups who now show little difference in participation after these factors are taken into account.

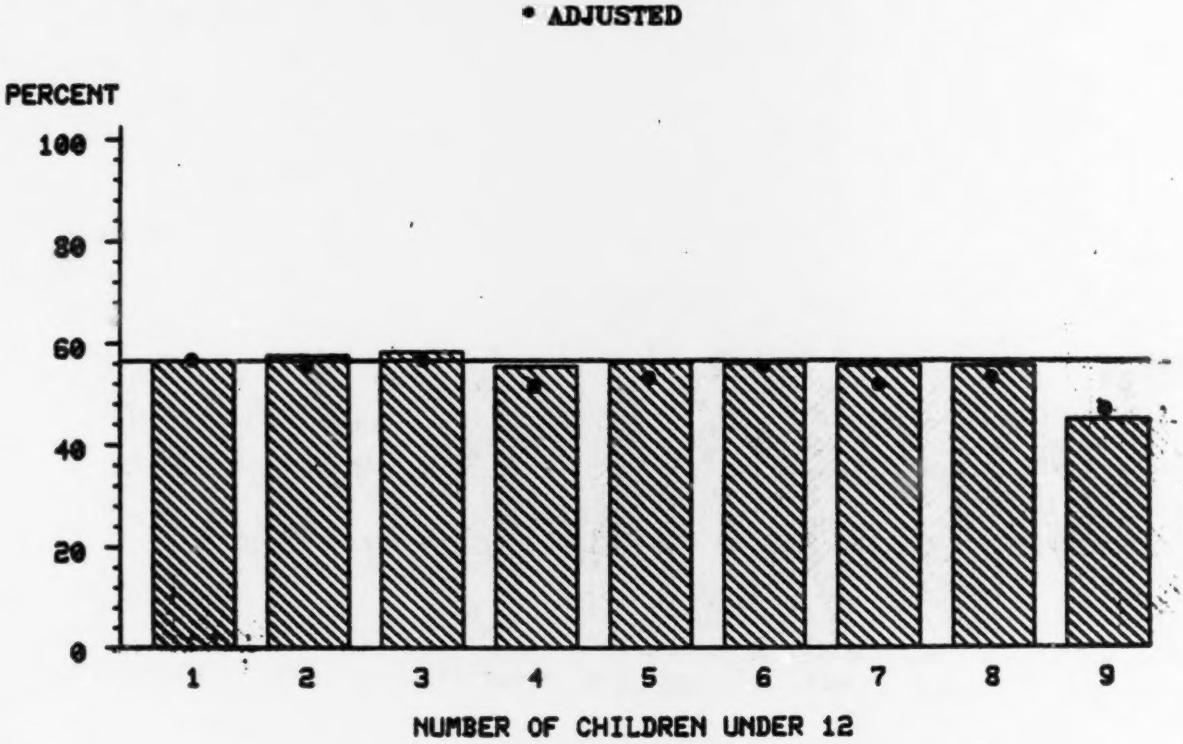
READING LITERATURE BY OCCUPATION



White-collar workers (professionals, managers, salespersons and clerical workers, and to a lesser extent, service workers) have reading rates well above the average, as do students not shown in this figure (79.2%). On the other hand, blue-collar workers and retired people (not shown above, 43.5%) read at levels below the national average.

Removing the effects of associated factors considerably reduces this variation across occupational categories, until most hover around the national average (although housekeepers, not shown above, still read at a lower rate, 49.0%). It's likely that education and sex accounted for some of the original occupational differences shown in the unadjusted rates.

READING LITERATURE BY NUMBER OF CHILDREN



Presence of Children:
1 No children
2 One 6-11
3 Two + 6-11
4 One under 6
5 One 6-11, One under 6
6 One under 6, Two+ 6-11
7 Two+ under 6
8 One 6-11, Two+ under 6
9 Two + 6-11, Two+ under 6

Reading literature varies very little in relation to the number of children in the household. Only the group with two or more younger children and two or more older children reads at a rate noticeably below the national average.

After controlling for the influence of other factors, there is little change in this finding and presence of children seems to have little impact on reading levels.

The detailed results for participation in the arts are presented in Tables 3.3 and 3.4. The former shows the percent participation in each category of the 11 demographic variables, considering each variable separately. Table 3.4 adjusts these figures, taking into account all the other variables (i.e. holding them constant). In both tables, specific sub-category figures can be compared to the grand mean in the first row. For example, in Table 3.3, we see that for classical music, the college educated considerably exceed the grand mean (13%) in terms of participation and that this result is maintained when other factors are controlled (Table 3.4).

5) INTERPRETATIONS OF PARTICIPATION IN THE ARTS

Do audiences for art performances, visitors at art galleries and museums, and readers of literature constitute separate or overlapping groups? If they overlap, can we predict attendance at a particular art event from participation in another type of art event? (If the overlap between two art events is no greater than average public attendance, then attendance at one event will not aid in predicting attendance at the second type of art event.) Does multiple participation form a complex pattern in which participation in one art event is associated with participation in a set of other art events? Finally, do particular background characteristics explain participation in multiple art events better than others?

Table 3.5 presents data on the degree of overlap between attendance at pairs of art events. Reading down the columns indicates what percentage of the art audience cited at the top of the column also has been part of the audience of the art event in the row. For example, 34% of those who had attended a jazz performance had also attended a classical music concert in the last 12 months; this compares to the 13% attendance rate for live classical performances for the sample as a whole. Note that the percentage overlap between two arts audiences is not symmetrical because the audiences for these eight art forms differ in size. For instance, while 78% of those attending a jazz performance also read a form of literature in the last 12 months so did 56% of the sample as a whole; on the other hand, only 13% of those who read literature in the past 12 months also attended a jazz performance compared to 10% for the entire sample.

Because of the large number of visitors to art galleries and museums (22% of the sample), over 50% of the audiences for each of the other arts are comprised of those who have visited art museums; the same is true for reading literature. About a third of the audience for jazz performances also attend performances of classical music, musicals, and plays. A larger proportion of the audience for classical music (40-55%) are also part of the audience for musicals and plays. A still larger proportion of the audience for opera (50-65%) also attend performances of classical music, musicals, and plays. About 60% percentage of the audience for musicals attend plays. Approximately two-fifths of of the audience for plays are attendees of performances of classical music and musicals. About 50-65% of the audience for ballet overlaps with the audiences for plays, classical music, and musicals.

Table 3.5 shows particularly strong overlaps between the following pairs of audiences in percentage terms (40% and over):

* Jazz and musicals, literature and museums
* Classical music and musicals, museums and literature
* Opera and classical music, plays, musicals, museums and literature
* Musicals and plays, museums and literature
* Plays and classical music, museums and literature
* Ballet and classical music, musicals, museums and literature
* Museums and musicals and literature

As noted above, each art form shows high overlap with museums and literature, which have relatively high participation, although the reverse is not true (e.g., museums overlap only weakly with other art forms because of their much smaller audiences.)

Table 3.5: Overlapping Audiences for Arts Activities: Percentage of Reference Audience Also Reporting Attendance at Other Core Arts Activities

	Reference Audience							
Percent Also Attending:	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Reading
Jazz	X	25%	27%	21%	25%	32%	22%	13%
Classical Music	34	X	63	38	44	58	37	20
Opera	9	15	X	10	13	23	10	5
Musicals	41	54	64	X	62	64	44	27
Plays	31	41	51	39	X	50	33	18
Ballet	14	19	32	14	18	X	13	7
Art Museums	51	62	69	52	60	68	X	33
Reading	78	86	88	82	87	88	84	X

X = 100% (by definition)

The degree to which participation in a second art form can be predicted from participation in a first art form can also be statistically expressed in terms of correlation coefficients. This coefficient, which varies between -1 and +1, represents the improvement in predicting attendance at one event that is gained by knowing whether a person attends another art event. If the coefficient equals -1, then if a person participates in the first activity, we can always correctly predict that the person does not participate in the second activity. If the coefficient equals 0, then no systematic pattern exists--if we know that a person participates in a first art form, we are no better able to predict his/her participation in a second art form. On the other hand, if the coefficient equals 1, then the relationship is perfect-- if someone attends the first art form, then he/she attends the second.

Table 3.6 presents the correlations between each pair of arts audiences. The correlations are all positive and range from +.10 to +.39; To measure predictability (how much attendance at one arts activity predicts attendance at a second), we use the square of the correlation coefficient. Thus, the highest correlation, .39, between stage plays and musicals, means that only 15% (.39-squared) of the variance in play attendance is accounted for by attendance at musicals. In brief, knowing whether a person participates in one arts activity provides a useful but still modest improvement in predicting his/her participation in a second activity compared to the average attendance figures.

The correlations suggest that the overlap is greater between some art forms than others. The largest correlations, indicating more audience overlap, are found between:

Table 3.6: Correlations Between Arts Audiences

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums
Jazz							
Classical Music	.21						
Opera	.10	.28					
Musicals	.17	.32	.20				
Plays	.19	.32	.21	.39			
Ballet	.16	.28	.22	.24	.23		
Art Museums	.23	.36	.21	.29	.33	.24	
Reading	.12	.20	.10	.22	.21	.12	.26

1) Classical music and musicals (.32)
2) Classical music and plays (.32)
3) Classical music and art museums/galleries (.36)
4) Plays and art museums/galleries (.33)
5) Plays and musicals (.39)

Conversely, the lowest correlations are found between:

1) Jazz and opera (.10)
2) Jazz and reading (.12)
3) Opera and reading (.10)
4) Ballet and reading (.12)

These lower correlations suggest that these pairs of arts activities have relatively smaller degree of overlap across audiences.

As noted in Chapter 2, we can use these measures of overlap and correlation in Tables 3.5 and 3.6 to identify clusters of audiences to simplify these complex patterns of overlapping participation. For example, participation in a specific activity may be closely related to paricipation in a cluster of other art activities, while participation in a second activity might be associated with another cluster of activities. One approach to such clustering comes through factor analysis, which identifies clusters or groups of variables united by underlying factors.

In the case of the matrix of correlations of Table 3.6, only one factor emerges, as indicated in Table 3.7.*

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* As noted in Chapter 2, factor analysis simply identifies (through correlational analysis) those variables which are interrelated through some hypothetical underlying factor. The interrelationships are indicated through "loadings" (figures in Table 3.7); the higher the loading, the stronger the association with the hypothetical factor. However, factor analysis does not identify what the factor is, merely that it exists. Identification of the factor is a theoretical, rather than a statistical issue. Nor does factor analysis identify what the crossing point, or intersection, between two factors is, except generally to identify objects (here activities) in the analyses that are unrelated to the hypothetical factors.

Table 3.7: Clusters of Multiple Participation in the Arts

	Factor 1
Jazz	.428
Classical Music	.684
Opera	.474
Musicals	.671
Plays	.666
Ballet	.528
Art Museums	.672
Reading	.492

Table 3.7 identifies only a single factor underlying participation in all the art forms. There is no indication that participation separates into separate clusters; rather, participation in all the art forms is interrelated. The strongest associations are found among classical music, musicals, plays and museums, as indicated by their high loadings (values over .66) in all four cases. The activity that is least related to general participation, and to the other arts activities, is attending live jazz performances.

We can use the Table 3.7 evidence, then, to justify construction of a single index of arts participation. We do that by giving one point to each respondent for each arts activity in which the respondent reported participating. Scores can thus range from 0 (participation in no activities) to 8 (participation in all eight activities). Some 35% of respondents reported no such activities, 31% one activity, 14% two activities, 8% three, 5% four, 3% five, 2% six, and 0.7% seven; only .2% of respondents reported participating in all eight art forms in the previous year.

6) BACKGROUND FACTORS RELATED TO THE ARTS PARTICIPATION INDEX

Overall participation in arts activities tends to be influenced by the same background factors that are consistently associated with participation in individual arts activities. Table 3.8 presents the association between the arts participation index and our eleven index scores in the columns indicate the average number of arts activities in which participation (jazz, classical music, opera, musicals, plays, ballet, art displays or reading literature) is found across categories of these ten factors.

The first column presents the unadjusted figures, considering, as in Table 3.3, each background factor independently of all others. The second column (adjusted figures) shows the association between multiple arts participation and each background factor, controlling for all these other background variables. It is parallel to the entries in Table 3.4.

To illustrate, the average individual participated in .83 types of arts activities in the last 12 months (as shown in the Grand Mean). For persons with household incomes of $25,000 and over, the rate rises to 1.29 types of arts activities in the last year. However, when other factors are controlled (adjusted column), the participation rates for this group falls to 1.00, still above the national average but well below the 1.29 figure for that group prior to MCA adjustment. The indications are again that other factors associated with income, such as education and occupation, account for at least part of the high participation of this group.

Table 3.8: Unadjusted and MCA-Adjusted Indices of Multiple Arts Participation by Demographic Factors

	Unadjusted	Adjusted
Grand Mean:	.83	.83
Income:		
Under $5,000	.50	.74
$5,000-$9,999	.45	.68
$10,000-$14,999	.63	.75
$15,000-$19,999	.67	.74
$20,000-$24,999	.83	.83
$25,000 and over	1.29	1.00
not ascertained	.91	.90
SMSA:		
Cent city of SMSA	.97	.97
SMSA, not cent city	.96	.86
Not in SMSA	.55	.68
Age:		
18-24	.82	.75
25-34	.95	.80
35-44	1.02	.91
45-54	.86	.88
55-64	.73	.87
65-74	.60	.87
75-96	.38	.71
Marital Status:		
Married	.78	.76
Widowed	.50	.81
Divorced	1.07	1.03
Separated	.71	.88
Never Married	1.06	.98
Race:		
White	.86	.85
Black	.58	.75
Other	.70	.41
Sex:		
Male	.77	.70
Female	.88	.95
Education:		
Grade School	.11	.24
Some High School	.24	.35
High School Graduate	.57	.60
Some College	1.16	1.09
College Graduate	1.75	1.62
Graduate School	2.20	2.01
Work Hours:		
None	.70	.91
1 to 29	1.00	.85
30 to 39	.92	.77
40 hrs.	.85	.70
41 to 49	.92	.76
50 or more	1.12	.88
Occupation:		
Professional	1.76	1.06
Managerial	1.32	1.00
Sales, Clerical	1.07	.95
Craftsman	.50	.78
Operatives	.37	.74
Laborers	.42	.77
Service Workers	.63	.76
Not Working	.61	.76
Keeping House	.60	.67
Student	1.34	1.00
Retired	.57	.84
Presence of Children:		
No Children	.87	.86
One 6-11	.83	.82
Two+ 6-11	.84	.83
One under 6	.66	.66
One 6-11, One under 6	.67	.70
One under 6, Two+ 6-11	.52	.61
Two+ under 6	.77	.76
One 6-11, Two+ under 6	.77	.84
Two+ 6-11, Two+ under 6	.60	.69

The apparent influence of each of the background variables on overall arts participation is as follows:

Income

People in higher income brackets tend to participate in more types of arts activities. In part, this trend is attributable to the effects of associated background factors, such as education. That is, variations by income are diminished consistently by holding other factors equal.

SMSA

Respondents living in SMSA's tend to participate in more types of activities than those residing outside of SMSA's. Other background factors account for much of the difference between people living outside SMSA's and those living within an SMSA, but not its central city. These factors may be differential educational and income levels of people who live in the suburbs of cities.

Age

Multiple participation increases with age until a decline in the 45-54 age group. Most of these age differences (except for the oldest category) decrease when the influence of other variables is removed, suggesting that other factors (possibly income, marital status and education) explain some of this variation across age groups.

Marital Status

Widowed and separated individuals are less likely to participate in multiple arts than are the married, divorced or never married. These differences decrease when other factors are controlled, indicating the influence of other factors such as age or income.

Race

Blacks are less likely to participate in the arts than whites or "other" races. However, when other background factors are taken into account, blacks are more likely than "other" races to participate in the arts.

Gender

Women participate in more types of arts activities than do males, whether other factors are equal or not.

Education

The variety of arts activities attended is most strongly related to educational level, regardless of the impact of other background factors.

Work Hours

Those working part-time are most likely to participate in a variety of arts activities, while people not in the labor force are least likely to participate. Generally, both those working less than 40 hours and those working 50 or more hours are higher than average in multiple arts participation. However, when the effects of associated factors are controlled, the non-working show the highest rate of arts participation, indicating that other factors (e.g., age, education) suppressed their general rate of participation.

Occupation

Professionals, students, managers, and sales/clerical workers tend to have the most variety in their arts participation. Much, but not all, of their greater participation is attributable to the influence of other factors (as shown by rates moving toward the mean after adjustment for these factors). Probably, differential education and income are the major factors involved.

Presence of Children

Individuals without children at home are most likely to manifest multiple arts participation; generally, those with children under six show lower than average participation. This overall pattern shows little change after adjustment for the impact of other background factors.

Region

Respondents in the West tend to participate most in a variety of arts activities, and respondents in the South participate least. After adjustment for the other background factors, arts participation is only slightly above the Northeast and Northcentral, while participation in the South comes closer to average as well, being only about 10% less than the other regions.

SUMMARY

This chapter presented basic data relating to public participation in eight different art forms: jazz, classical music, opera, musicals, plays, ballet, art galleries and museums, and reading literature. A series of ten questions asked in every month of SPA'82 recorded both attendance at and direct performance in each of these arts. Estimates of participation (i.e., attendance) range between 3-4% of the population for ballet and opera, to over 20% for musicals, to a high of over 50% for those who read some form of literature. Although less than 1% of the sample had directly participated in a public performance of one of these art forms, this is still a sizeable segment of the population (over a million people) appearing in some public performance.

These data describe participation in general. We are also interested in arts participation among different sub-groups of the population. Thus, we examined 11 demographic variables (age, gender, race, education, income, SMSA, region, marital status, work hours, occupation and number of children) to identify consistent differences among sub-categories of each variable. Two types of association are analyzed: participation by each demographic variable considered separately (unadjusted), and after all the other variables are held constant (adjusted).

Education emerges as the strongest demographic predictor of arts participation either considered independently or after adjustment for the other demographic variables. Occupation and income are also strong predictors; however, their predictive power is weakened considerably when other background factors are taken into account. (The single exception is the over $50,000 income group whose participation is higher than that of any other income group.) Both income and occupation are associated with education; thus, when education is held constant, income and occupation differences in participation tend to diminish. Education thus remains the strongest explanatory variable in arts participation.

Differences in participation are related to certain age, gender, work hours, marital status, SMSA and race categories. However, differences among most of these sub-categories are weakened considerably when other background variables are taken into account (i.e., in the adjusted figures).

In examining overlapping arts audiences, certain pairings of activities show more overlap than other pairings. However, factor analysis reveals a general pattern of interassociation across all the art forms, and thus did not reveal distinct clusters of arts participation. An index of multiple arts participation was constructed, and here again education was the most important variable in explaining scores on this index statistically.

Chapter 4

METHODOLOGICAL AND CONTEXTUAL FACTORS IN SURVEY RESPONSES

The responses to the core attendance questions in Chapter 3 raise several methodological issues in terms of their reliability and validity. Six methodological questions in particular are raised in this chapter:

1) How consistent are the overall sample responses from month-to-month, since each month was a separate random sample that should yield approximately the same annual estimates?

2) How internally consistent are reported monthly attendance and reported annual attendance responses?

3) How consistent are these data with aggregate level data collected from arts organizations and performing companies?

4) How closely do these data seem to compare with other national and regional surveys of arts participation?

5) How closely do the 1982 U.S. data compare with data from parallel surveys in other countries?

6) Do logit-probit analyses suggest a different pattern of results from the Multiple Classification Analysis (MCA) results analyzed in Chapter 3?

An answer to the first question involves a separate tabulation of SPA responses for each of the 12 survey months. These tabulations are controlled for the monthly sample differences in respondent characteristics.

The second question involves analyzing a specific set of more detailed and specially designed questions pertaining to attendance in the 11 months preceding the target survey month; these detailed questions were developed according to a statistical model that allowed for comparison of the consistency between monthly and yearly estimates.

The third question involves some difficult and somewhat arbitrary comparisons with aggregate data from arts organizations about actual attendance patterns at certain types of performances. These comparisons are less than ideal because of the problems in the methodologies employed in recording attendance from box office figures which are the basis of the official aggregate attendance figures.

The fourth question involves comparisons of SPA responses to other surveys that have also estimated proportions of Americans who attend arts performances. Some of these comparisons are also hampered by different measurement procedures and by the variations in the phrasing of attendance questions.

The fifth question also involves methodological problems of comparing questions, including language differences when certain international comparisons are attempted. Nonetheless, some surprising cross-national parallels in responses were found.

The sixth question involves a separate statistical analysis program, called "logit-probit" analysis of the attendance data in Chapter 3. This analysis may be more appropriate for percentage attendance data, particularly for those attendance questions in the survey that were answered positively by 10% or less of those interviewed.

A further methodological question to be examined in a subsequent report deals with how valid the general attendance responses appear to be in terms of the specific performances that respondents had in mind when answering the arts participation questions. That report represents analyses of a collection of open-ended "follow-up" responses in separate national telephone surveys of arts participation conducted by the University of Maryland in June of 1983 and January of 1984. In this survey, respondents who said they had attended arts performances in the last year were asked specific questions about their most recent attendance at such a performance: its location, the names of the performance and performers, and whether the performance was an amateur or professional production. The extent to which respondents can provide appropriate answers to these questions affects one's confidence in these questions as valid indicators of arts attendance.

Contextual Questions:

In addition to these questions which centered largely on method, this chapter also contains five additional analyses that elaborate the analysis of arts participation data in Chapter 3. These involve:

7) Analysis of "locational" or "facility" differences in the types of performances attended. What proportion of jazz, classical music, opera, or other performances were seen at different types of facilities (e.g., college campuses, in parks, in churches)?

8) Analysis of attendance patterns by more fine-grained geographical factors than the five regions or three urban-rural categories examined in Chapter 3. For this purpose a special 24-category geography variable was created which subdivides the country into the four regions, but further examines the larger metropolitian areas in each region. These areas include New York City, Boston, Philadelphia, Washington, Baltimore, Detroit, Chicago, St. Louis, Los Angeles and the San Francisco Bay area. In addition certain Southern cities are combined in this analysis: Atlanta, Miami, Houston, Dallas, and New Orleans.

9) Analysis of arts attendance by very detailed occupational categories,

to note important variations in attendance among those within the broad range of "professional" (or "service") occupations, for example.

10) Analysis of arts attendance by other background variables collected in the survey that seem of less central relevance to arts attendance, but may affect it nonetheless. These background variables include overall size of the household, types of housing unit (house, apartment, trailer, etc.), and presence of telephones or automobiles in the household.

11) Analysis of arts attendance according to whether other individuals in the respondent's household attended. Is it the case, for example, that one is more likely to attend performances if one's spouse also attends, or are the dynamics of attendance more complementary (i.e., if one goes, the other stays home or does something else)?

This latter question involves a very complex analysis of the present data collected on a household basis, by using attendance information obtained from spouses and other household members as predictor variables for the respondent's attendance.

1) MONTHLY DIFFERENCES IN ARTS ATTENDANCE

As noted in Chapter 2, data collection was conducted in separate, relatively equal, samples for each of the 12 months of the calendar year 1982. This monthly sampling makes it possible to examine attendance differences at arts performances both on a monthly and on a seasonal basis. These monthly differences are shown in Table 4.1 in two parts: a) reported attendance in the prior month and b) reported attendance in the prior 12 months. Figure 4.1 graphically portrays the differences by month.

With regard to reporting of participation in the prior month (remembering that January 1982 respondents were reporting on December, 1981 attendance, February respondents on January, 1982 attendance, etc.), we find the following monthly peaks and valleys:

	Highest attendance months:	Lowest attendance months:
Jazz:	April to August	December and January
Classical Music:	March to July	September to November
Opera:	January and February	September and October
Musicals:	April and May	September to November
Plays:	February and May	August to November
Ballet:	May and June	August to November
Art Museums:	April to August	November to February

In general, these patterns of reported arts attendance tend to indicate higher participation rates in the spring and summer months and lower participation in the fall and winter months. The main exceptions to this pattern are for opera (peaking in January and February), and for stage plays (peaking in February).

Month-to-month variations in reporting of yearly attendance are much smaller than for monthly attendance. One reason for this greater year round stability is that the reporting period is longer, that is the seasonal and month-to-month variations become averaged for the annual reporting period and already aggregated into the rate of attendance. Moreover, the proportions being estimated are much higher (e.g., over three times as many respondents reported going to jazz in the previous year as reported going in the previous month). Nonetheless, there are some substantial differences in reported yearly attendance (Table 4.1b), such as the high proportions of classical music, opera and play attendance in the February survey, the low proportions of classical music, musical, play and museum attendance in the December survey, and the low proportion of museum attendance in the March survey. Otherwise the differences across months are within 1 or 2 percentage points of the overall proportion for the entire survey.

Relatively small monthly variations are also found for reading. Outside of the high reading levels for February and November and the low reading levels for December, the estimates are within 3 or 4 percentage points for the entire survey year.

Table 4.1: Monthly Percentages of Respondents Reporting at Least One Attendance at a Core Arts Activity

a. Attendance in Prior Month
1982

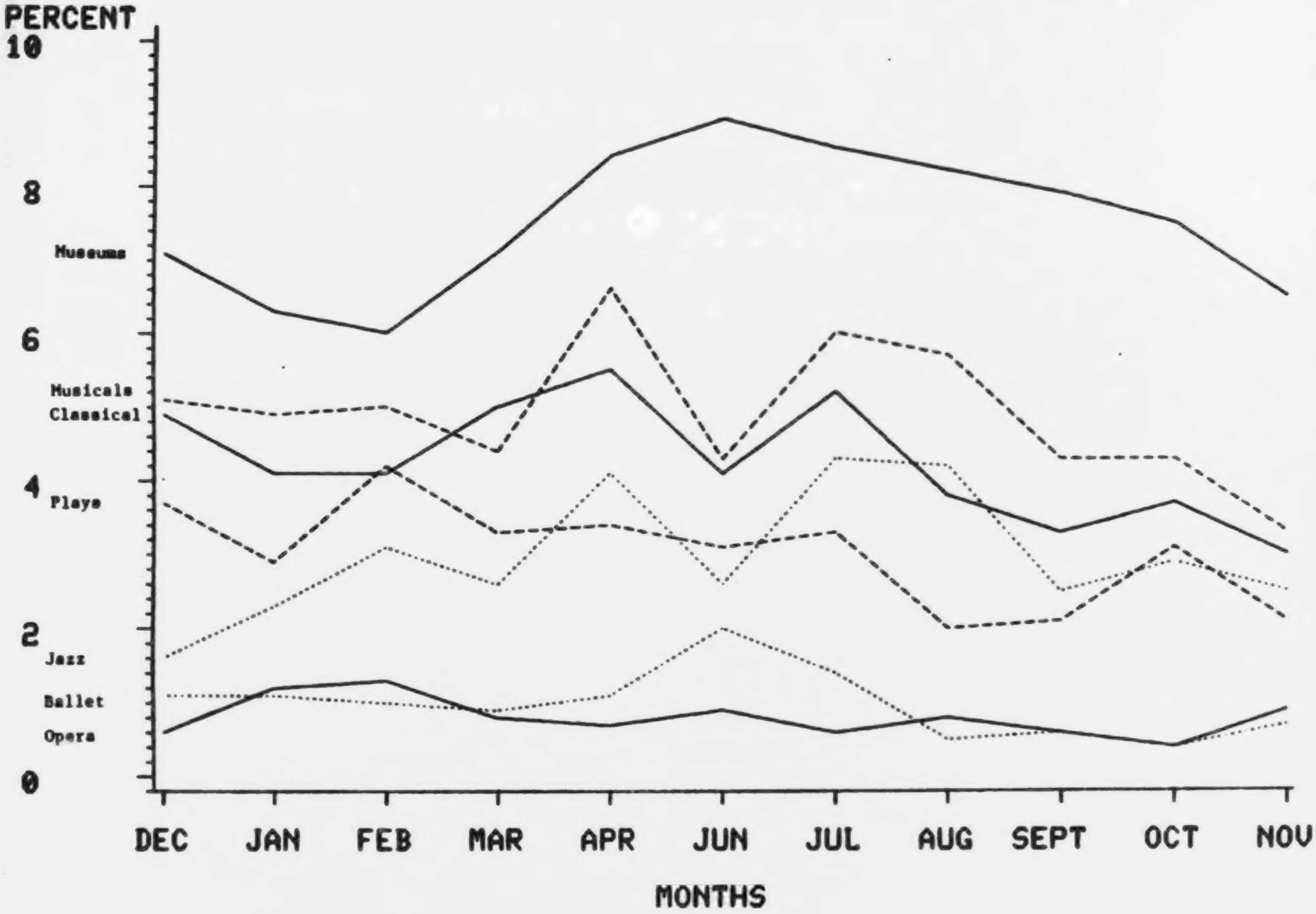
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	TOTAL
Jazz	1.6	2.3	3.1	2.6	4.1	4.7	2.6	4.3	4.2	2.5	2.9	2.5	3.0
Classical	4.9	4.1	4.1	5.0	5.5	6.7	4.1	5.2	3.8	3.3	3.7	3.0	4.4
Opera	.6	1.2	1.3	.8	.7	1.0	.9	.6	.8	.6	.4	.9	.8
Musicals	5.1	4.9	5.0	4.4	6.6	6.5	4.3	6.0	5.7	4.3	4.3	3.3	5.0
Plays	3.7	2.9	4.2	3.3	3.4	4.0	3.1	3.3	2.0	2.1	3.1	2.1	3.0
Ballet	1.1	1.1	1.0	.9	1.1	1.9	2.0	1.4	.5	.6	.4	.7	1.1
Art Museums	7.1	6.3	6.0	7.1	8.4	8.8	8.9	8.5	8.2	7.9	7.5	6.5	7.5

b. Attendance in Prior Year

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	TOTAL
Jazz	8.8	10.6	8.6	9.7	9.1	10.6	9.8	9.8	9.5	9.4	10.3	9.2	9.5
Classical	12.1	17.4	12.4	14.3	13.7	13.7	12.8	13.8	12.0	12.4	12.0	9.5	13.0
Opera	2.5	4.6	4.2	3.0	3.4	3.5	2.9	2.3	3.7	3.0	1.4	2.0	3.0
Musicals	16.8	19.4	18.0	18.5	20.2	20.3	18.6	18.2	19.1	18.4	20.2	16.0	18.6
Plays	11.8	13.7	13.1	11.8	12.1	12.1	12.7	11.0	11.8	11.6	12.7	8.6	11.9
Ballet	2.5	4.7	4.9	5.6	3.7	5.6	4.9	3.8	4.0	4.0	3.2	3.5	4.2
Art Museums	22.7	22.8	19.4	24.4	23.3	22.9	22.2	20.2	23.2	21.6	23.6	19.3	22.1
Reading	53.8	60.0	56.0	56.4	56.3	56.9	56.2	55.3	55.4	57.4	59.9	53.6	56.4

FIGURE 4.1

MONTHLY VARIATIONS IN ARTS PARTICIPATION (DEC. 1981 THRU NOV. 1982)



2) EXAMINING THE CONSISTENCY BETWEEN YEARLY AND MONTHLY ESTIMATES: A STATISTICAL MODEL

Our second methodological question is: Are the monthly estimates consistent with the yearly estimates in terms of some basic assumptions and principles from mathematical probability theory? We can explore this question by examining the structured properties of the respondent's yearly estimate of particiation in terms of the respondent's monthly estimate of participation.

To do this:

Let M = proportion of respondents participating each month and
let m = the complement proportion not participating that month (thus, M+m = 1)

O = proportion of respondents participating in other months and
let o = the complement proportion not participating in other months (O+o = 1)

Theoretically these two questions separate four possible "types" of resondents:

MO = proportion participating both in the prior month and also participating the preceding (11) months of the year,

Mo = proportion participating in the prior month but not participating in preceding months,

mO = proportion not participating in that month but participating in preceding months, and

mo = proportion not participating in that month and also not participating in other months.

Thus, 1 - mo = total proportion participating in the course of a year (where MO + Mo + mO +mo = 1).

From the general SPA questions (see Table 2.1), we have estimates both of mO, and of the sum of (MO and Mo) together. Our problem is to untangle these variables and get separate estimates of MO and of Mo. Therefore, a set of questions was inserted in the November and December surveys asking about participation in the prior 11 months; the purpose of these questions was to generate separate figures for MO and Mo.

Adding MO to mO, provides an independent estimate of O (since MO + mO =O). Subtracting this value of O from 1 provides an independent value of o and this value is entered into the equation for yearly participation, which is 1-mo.

This independent "theoretical" estimate (1-mo) can then be compared with actual responses to the survey question "Did you participate in the last year?"

As shown in the last column of Table 4.2, the estimated ratio from these monthly data indicates about a 20% higher attendance rate for jazz performances for the year than was actually obtained, indicating that respondents may exaggerate their reported monthly participation, or under-report their yearly participation, in response to the initial attendance questions in the survey. The final columns in Table 4.2 show inflated monthly estimates of about the same magnitude for the other basic arts questions examined in Chapter 3.

Another way of examining these findings is to show the overlap (between the prior month and the 11 months before that month) proportions that would be consistent with the monthly and annual estimates and to compare these with the actual overlap estimates from respondents. Accordingly, if it were the case that 9.5% of the population went to a jazz performance in the last year and 3.0% went in the last month, the necessary condition for this to hold (according to probability theory) would be for only 10% of those who attended in the prior month to have also attended in the prior 11 months. However, as can be seen in Table 4.2, among those respondents who said they had attended a jazz performance in the prior month, almost three-quarters (73%) said they had attended in the prior 11 months. That is over 7 times the likelihood allowable within the constraints of the probability model.

The theoretical figures are equally divergent for the other core activities: 9% allowable for classical performance (vs. 75% respondent estimate), 10% for opera (vs. 64%), 14% for musicals (vs. 79%), 10% for plays (vs. 77%), 3% for ballet (vs. 69%), and 16% for art galleries and museums (vs. 79%). These discrepancies are consistent with the view of dramatic "telescoping" of respondent estimates to recent periods (i.e., the reporting of earlier attendance as having occurred in the prior month), thus creating a severe inflation of the participation rate for the month. At the same time, they would also be consistent with a model that treated the annual estimates as underreporting actual participation over the year.

This problem is especially unfortunate because it leaves ambiguous the use of the estimates of frequency of attendance for the prior month, which followed the monthly participation question. These frequency questions are the only source from the present data for estimating total volume of participation (i.e., taking account not only of the proportion of participants, but also of the number of times each participant attends).

That is, theoretically at least, the only way in which survey figures could be compared with aggregate ticket sales or other audience data from institutions, since such aggregate data which do not distinguish between two attendees and a single attendee who attends twice.*

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* In terms of translating the monthly frequency data into "head count" figures, the following tabulation provides the frequencies of monthly attendance per number of participants -- using the weights in parentheses.

Answer Category: Weight:	One (1)	2-3 (2.5)	4-5 (4.5)	6 or more (8)	Month
Jazz	351	122	22	16	1.55
Classical Music	569	162	29	22	1.64
Opera	113	20	4	4	1.51
Musicals	715	145	11	8	1.36
Plays	437	93	6	6	1.37
Ballet	157	27	2	0	1.25
Art Museums	893	312	56	43	1.74

In other words, not only was attending art galleries and museums mentioned by more respondents than other activities, but those who reported participating in that activity reported participating more often (1.74 times per participant per month) than participants in other activities. Attending classical concerts was also higher on a per participant basis (1.64 times per participant per month) while attending ballet (1.25 times per participant) was at the lower end of the frequency range.

* first two dimensions from factor analysis

Table 4.2: Consistency of Annual and Monthly Estimates

	a	b	c	d	e	f	g	h	INFLATION RATIO
	YEARLY- (m+O)	MONTHLY (m)	= YR-MO	+MOxESTIMATE(O) (m)	=o	O	O x M	= 1-om	h ÷ a
Jazz	.095	.030	.065	+ .030 x .73	.087	.913	.913 x.970	.114	+20%
Classical Music	.130	.044	.086	+ .044 x .75	.119	.881	.881 x.956	.158	+22%
Opera	.030	.008	.022	+ .008 x .64	.027	.973	.973 x.992	.035	+17%
Musicals	.186	.050	.136	+ .050 x .79	.176	.824	.824 x.950	.217	+17%
Plays	.119	.030	.089	+ .030 x .77	.112	.888	.888 x.970	.139	+17%
Ballet	.042	.011	.031	+ .011 x .69	.039	.961	.961 x.989	.050	+19%
Art Museums	.221	.075	.146	+ .075 x .79	.205	.795	.795 x.925	.265	+20%

Example:

For Jazz: the YEARLY ESTIMATE is .095 and the MONTHLY ESTIMATE is .030. This means that the proportion not attending last month is .970. The proportion attending only in the prior 11 months is O=[.095 - .030 = .065] which should be added to EST [O] for the preceding 11 months; or .065+.030[.073]=.087, which leads to the: Estimated proportion not attending in the prior 11 11 months, which is o= .913

The ESTIMATED YEARLY attendance is 1-MO = 1- [.970] [.913]= 1-.886 which is .114 or an 11.4% ESTIMATED PARTICIPATION in the last year. Compared to the 9.5% survey response in straightforward question in Table 3.2, this is a 20% overreporting ratio.

3) COMPARISONS WITH AGGREGATE ATTENDANCE DATA

Perhaps the most appropriate comparison of the core attendance data in Chapter 3 would be with the audience "head count" admissions (box office) data compiled by arts organizations. However, this is perhaps the most difficult of comparisons to make with much statistical confidence, as has been noted by several observers (e.g., Toffler 1965; Ennis 1968; Robinson 1979).

First, the "head count", "box office" or "tickets sold" admissions data are collected and maintained differently across organizations. These may include tickets sold rather than persons attending, thus inflating the actual attendance rate. These may or may not include complimentary tickets given to reviewers, performers or other associates. More fundamentally, ticket sales or admissions data do not reflect multiple attendance by the same individual. One individual who attends five opera performances is not distinguishable from five separate individuals attending once. Moreover, what is being considered an opera performance? What if the opera organization presents an operetta, or two leading performers simply singing duets and arias? Are head counts or admissions data for summertime outdoor performances included? The methodological problems become increasingly complex when other forms of art performances (e.g., dance or theatre) are considered.

In fact, one of the main reasons for conducting a survey such as the SPA was to put these relative attendance figures in somewhat clearer perspective, by making the individual the unit of analysis rather than attempting to resolve the diverse methods that various arts organizations use to measure their audiences using admissions or box office numbers. Therefore one should not be surprised to find arts attendance figures from the

U.S. Statistical Abstract (as shown in Table 4.3) that diverge significantly from data in the SPA.

These aggregate figures for various types of arts performances shown in Table 4.3 are subject to many problems when compared to what might appear to be their counterpart attendance reports in Chapter 3. Some of the figures in this U.S. government report refer to younger age groups than in SPA'82. Some figures include amateur arts events, others do not. Many of the Table 4.3 figures are disputed by arts organizations who count their patronage using alternative methods.

Here, again, then, discrepancies can be due to different definitions , observational procedures and units of analysis. If measurements of the two behaviors were more closely coordinated, closer survey participation figures to those in Table 4.3 would undoubtedly be found.

Table 4.3: Aggregrate Arts Participation Data

No. 392. Nonprofit Museums—Selected Characteristics, by Type of Museum: 1979

[For fiscal years of museums ending in 1979. Based on a sample of 1,373 nonprofit museums. Subject to sampling variability; see source]

Item	Unit	Total	History	Science	Art	General	Specialized	Park and visitor centers	Children's and junior
Museums	Number	4,408	2,204	800	650	392	167	166	51
Percent with general admission fee	Percent	31.8	33.3	36.8	15.9	24.8	61.5	14.8	40.7
Private nonprofit institution	Number	2,354	1,335	273	367	193	140	15	32
Government	Number	1,466	746	323	73	131	45	146	5
Educational institution	Number	476	46	188	166	51	13	1	12
Other	Number	115	77	17	5	6	1	6	2
Operating income	Mil. dol	1,088	261	380	296	88	27	30	8
Earned income	Mil. dol	460	101	160	143	31	16	5	3
Federal government	Mil. dol	148	48	52	25	8	1	13	1
State government	Mil. dol	126	67	25	14	14	1	4	(Z)
Local government	Mil. dol	189	16	96	42	21	3	6	2
Individual contributions	Mil. dol	47	9	14	19	3	2	(Z)	1
Foundations	Mil. dol	46	8	16	16	3	1	1	1
Corporations	Mil. dol	26	3	6	14	2	1	(Z)	(Z)
Other	Mil. dol	46	7	10	23	5	2	1	(Z)
Operating expenditures [1]	Mil. dol	1,066	228	388	304	84	27	28	8
Administration	Mil. dol	200	55	55	60	16	6	6	2
Building and maintenance	Mil. dol	190	48	71	40	14	5	10	1
Exhibits	Mil. dol	131	24	58	34	8	4	1	1
Curatorial	Mil. dol	128	22	51	36	16	2	2	1
Annual attendance	Million	347.8	65.6	109.3	49.8	24.4	8.7	28.2	2.7
Regular full-time staff	Number	37,533	6,964	13,439	9,862	3,100	687	881	410

Z Less than $500,000. [1] Excludes museums not reporting expenditure distributions. Total includes other types of expenditures, not shown separately.

Source: U.S. National Center for Education Statistics, *Museum Program Survey*, 1979.

No. 393. Performing Arts—Selected Data: 1970 to 1983

[Receipts and expenditures in millions of dollars. For season ending in year shown, except as indicated]

Item	1970	1975	1976	1977	1978	1979	1980	1981	1982	1983
Legitimate theater: [1]										
Broadway shows:										
New productions	62	59	62	53	54	47	67	48	50	36
Playing weeks [2] [3]	1,047	1,101	1,136	1,347	1,360	1,472	1,545	1,461	1,258	1,119
Number of tickets sold (1,000)	(NA)	(NA)	7,181	8,815	8,621	9,115	10,822	10,694	8,102	7,898
Gross box office receipts	53.3	57.4	70.8	93.4	103.8	128.1	194.4	221.2	203.1	226.5
Road shows:										
Playing weeks [3]	1,024	799	814	987	1,025	1,192	1,343	1,317	980	1,057
Gross box office receipts	48.0	50.9	52.6	82.6	105.6	143.9	218.9	249.6	184.3	206.1
Opera companies [4]	648	807	913	914	956	986	986	1,019	993	1,031
Major	35	54	65	68	78	96	109	127	133	144
Expenditures	38.5	(NA)	71.8	79.7	96.3	111.8	133.6	161.6	191.1	212.4
Other companies	266	335	412	424	458	486	458	456	416	486
Workshops	347	418	436	422	420	415	419	436	444	399
Opera performances	4,779	6,425	7,109	7,369	7,806	8,864	9,391	9,863	9,510	10,693
Operas performed	341	387	427	427	448	486	487	509	571	580
Musical performances [5]	(NA)	(NA)	(NA)	(NA)	906	1,430	1,307	2,251	2,233	2,749
Musicals performed [5]	(NA)	(NA)	(NA)	(NA)	43	72	104	118	122	120
World premieres	17	16	46	33	42	64	79	88	94	98
Attendance (mil.)	4.6	8.0	8.8	9.2	9.8	9.9	10.7	11.1	10.1	12.7
Symphony orchestras [6]	1,441	1,463	1,410	1,463	1,470	1,540	1,572	1,572	1,572	1,572
College	298	300	356	356	278	379	385	385	385	386
Community [7]	1,019	1,003	872	888	950	909	925	925	919	920
Urban	24	41	56	60	76	79	86	86	94	101
Metropolitan	72	90	79	86	106	113	115	115	110	98
Regional	(8)	(8)	16	23	29	29	29	30	34	37
Major	28	29	31	31	31	31	32	31	30	30
Concerts	6,599	14,171	14,776	17,421	18,027	22,096	22,229	19,327	19,204	19,167
Attendance (mil.)	12.7	18.3	20.0	21.0	21.4	22.4	22.6	22.8	22.0	22.0
Gross income	73.3	124.5	137.0	154.1	178.1	216.8	246.3	288.9	325.5	348.9
Earned income	43.1	70.9	78.3	89.0	102.5	122.6	141.2	163.3	187.6	201.8
Contributed income	30.2	53.6	58.7	65.1	75.6	94.2	105.1	125.6	137.9	147.1
Gross expenses	76.4	129.5	141.5	160.9	183.1	221.0	252.1	289.3	315.3	352.2

NA Not available. [1] Source: *Variety*, New York, NY, June 6, 1984 issue (copyright). [2] All shows (new productions and holdovers from previous seasons). [3] Eight performances constitute one playing week. [4] Source: Central Opera Service, New York, NY, *Central Opera Service Bulletin*, periodic. Major companies have annual budgets of $100,000 or more and issue American Guild of Musical Artists (AGMA) contracts to soloists. Workshops are primarily college and university opera groups. [5] Covers not-for-profit companies only. [6] Source: American Symphony Orchestra League, Inc., Washington, DC. For years ending Aug. 31. Orchestras other than college groups are principally defined by their annual budgets: As of 1983, community, under $115,000; urban, $115,000–$250,000; metropolitan, $250,000–$900,000; regional, $900,000–$3,400,000; and major, over $3,400,000. Prior to 1983, other budget classifications were in effect. [7] Beginning 1978, includes youth and chamber groups with budgets under $70,000. [8] Classification began in 1976.

Source: Compiled from sources listed in footnotes.

(Source: 1985 U.S. Statistical Abstract, p.232)

4) COMPARISONS TO ATTENDANCE DATA FROM OTHER SURVEYS

The Survey of Public Participation in the Arts was not the first or the only national survey to obtain data on the extent of attendance at arts performances. The Louis Harris organization conducted perhaps the first national survey of arts participation in 1973. A second large scale survey was conducted by HumRRO in the Southern part of the U.S. in 1977, as reported in Johnston (1983), Reed and Marsden (1980) and Orend (1980).

A comparison of these various survey estimates is given in Table 4.4. It can be seen that the SPA data tend to be consistently lower than those obtained in these earlier surveys. First, the Harris survey obtained a 28% figure for attendance at either concerts or opera; combining the SPA data for these art forms gave an estimate of only about half that figure -- about 15%. Similarly, for attendance at ballet and modern dance, arts museums, science museums and historic buildings, the Harris figure -- collected 10 years previously from a national population with less formal education -- are almost twice as high. The figures for live theater are relatively close (33% vs. 26%), but the Harris data are still higher.

The Harris organization has completed three subsequent network studies, beginning in 1975, repeated in 1980 and repeated most recently in 1985. A comparison of the 1980 and 1984 surveys provides an ideal comparison since the SPA'82 was done midway between these two survey years. That comparison, as described in much more detail in Appendix B, also shows the Harris attendance and participation figures to be significantly higher than those in the SPA.

Estimated attendance in the South is also higher in the 1977 study of Arts Participation in the South than was found among Southern respondents in the SPA'82. But the variations with that study are not as large as those with the Harris data -- between 3 and 6 percentage points for six of the seven items, and under 15 percentage points for the seventh item (painting and art exhibits). Moreover, this latter figure may be lower in the SPA, because of definitional differences: the SPA data do not include paintings or art exhibits attended outside of museums or galleries, and that may account for the lower figures.

Table 4.4: Comparison of SPA'82 to Other Domestic Surveys: Percentages Reporting Attendance in the Past Year

a) Harris (1973)		SPA'82
Concerts or Opera	28%	15%
Live Theatre	33%	26%*
Ballet or Modern Dance	9%	5%**
Art Museums	50%	22%
Science Museums	51%	23%
Historic Buildings/Museum	58%	37%

* Includes musicals and plays from the SPA

** Estimate indicates data from University of Maryland follow-up study on attendance at modern dance performances.

b) Arts Participation in the South (1977)		SPA'82 South	(SPA'82 National)
Jazz Performance	13	9	(10)
Symphony or Chamber Music	17	11	(13)
Opera	6	3	(3)
Go to Theatre	26	23	(26)
Ballet or Modern Dance	9	4	(5)
Painting, Art Exhibit	34	20***	(22)
Tour Buildings/Museum	48	43****	(39)

*** In art galleries or museums only

**** Includes two questions in the SPA, one on visits to science, natural history and other museums and one on visits to historic places

5) COMPARISONS WITH ARTS SURVEYS IN OTHER COUNTRIES

National surveys examining the extent of public participation in the arts have been conducted in several other countries. Some of these surveys (e.g., France, Great Britain and the Netherlands) have been repeated across time, making it possible to track trends in reported participation and attendance patterns.

The data presented in Table 4.5 represent a sample of more recent and "comparable" survey results. Here, of course, more serious problems of comparability are possible than those with prior U.S. studies, since cultural differences arise in terms used to describe different types of arts performances — as well as the language and terms to describe them. For example, cabaret and certain musical theatre performances in France are unique to that culture, as are certain jazz performances in the U.S. context. Nevertheless, Table 4.5 indicates several interesting parallels, as well as differences, from the U.S. results.

Although the music questions in other countries differ (e.g., the French and Dutch questions on jazz include popular music as well as jazz performances), the results seem to indicate that American adults attend more music performances of all types. Americans report 13% attendance at classical music performances in the last year (compared to 8% in France and less than 13% attendance in the Netherlands), and the U.S. monthly rate of 4.4% attendance at classical concerts far exceeds the British rate of less than 1%. While the figures for jazz performances are lower than in France and the Netherlands, the U.S. data do not include popular music concerts, which have a consistently higher attendance rate in the U.S. (according to the supplementary 1983-1984 national survey of the University of Maryland which is described in a separate report).

The differences in attending opera and theatrical performances do not seem as large. The 3% annual attendance rate at opera in the U.S., for example, compares to a 2% rate in France, and the figures for attending non-musical theatre (and musicals) are also similar. The combined figures for musical and non-musical theatre for the Netherlands are higher than those which would be found for such (combined) theatre figures for the U.S. and France. The combined monthly figures for the theatre-opera-ballet performances in Great Britain appear to be somewhat lower than would be the case for the U.S. The U.S. figures for attending ballet are slightly lower than that reported in the French survey, but higher than the figure reported in the Netherlands.

The reported rate of visiting art museums and galleries in the U.S. sample is lower than that reported in the French and Dutch samples, but is again higher than that reported in the British sample.

As shown in the final column of Table 4.5, there are fairly similar figures for television arts exposure in the French national survey, with the exception of the much higher viewing of musical and non-musical theatre presentations on French television.

In general, then, these survey figures indicate that Americans report arts participation and attendance rates similar to those found in certain Western European countries. Attendance at music performances appears to be somewhat higher on a per capita basis in the U.S. data, but attendance at art galleries and museums appears lower -- at least in comparison to such attendance in France and the Netherlands. In general, reported monthly attendance rates in the U.S. sample for all arts activities do seem to be higher than those in Great Britain -- although the monthly U.S.figures may be somewhat inflated due to the framing of he participation question in SPA'82.

Table 4.5: Comparisons of SPA'82 Data With Arts Surveys in Other Countries: Percentages Reporting Attendance in the Past Year and Past Month

	IN PRIOR 12 MONTHS				IN PRIOR MONTH		WATCHED ARTS ON TV	
	U.S.	FRANCE	SWEDEN	NETHER-LANDS	U.S.	GREAT BRITAIN	U.S.	FRANCE
	1982	1981-82	1976	1979	1982	1980	1982	1981-82
n=	(17,254)	(3984)	(NA)	(13,027)	(17,254)	(22,600)	(17,254)	(3984)
ATTEND LIVE PERFORMANCE OF:								
Jazz	10%	10%*	NA	13%*	3%	1%*	18%	17%*
Classical	13	8**	4	13	4	0	25	22
Opera	3	2	NA		1	5	12	12
Musicals	19	20***	6	20(Est)	5		20	80(Est)
Plays	12	11**		23	3		26	45
Ballet	4	5**	NA	2	1		16	21
VISITED:								
Art Museums	22	21****	6	32***	8	3	23	20
Non-Art Museums	23	30*****	NA		NA	NA	NA	NA
Historic Site	37	32	NA	NA	NA	9	NA	NA
Movie Theater	63	50	16	44	NA	10	NA	NA

NA - Not ascertained
Est - Estimated
* Includes popular music performance
** Professional performance only
*** Includes cabaret, music hall and operettas
**** Temporary art expositions only
***** All museums

Source: France: (1982) Pratiques Culturelles des Francais Paris: Dalloz
Sweden: Kulturstatistik: Verksamhet, ekonomi, kulturvanor, 1960-1979 Sveriges officiella statistik (1981, pp. 329-341)
Netherlands: Social and Cultural Report 1980 Rijswijk: Social and Cultural Planning Office
Great Britain: Muriel Nissel (1983): Facts about the Arts London: Policy Studies Institute (p. 144)

6) ALTERNATIVE SIGNIFICANCE TESTS OF DEMOGRAPHIC FACTORS RELATIONS TO ATTENDANCE (LOGIT-PROBIT ANALYSIS)

In order to test properly for the significance levels of the relation of background factors and attendance, a special multiple regression program called Probit Analysis was conducted. Probit analysis is especially designed for situations in which the dependent (predicted) variable has only two categories (such as attendees vs. non-attendees) and has values above .90 or below .10. That means it would be particularly appropriate for dependent variables such as opera or ballet attendance, for which less than 5% of the SPA respondents said they had attended; and it may be useful as well as for jazz, classical music and play attendance for which only about 10% of the sample reported attended.

Table 4.6 shows the _t_-statistic values for the probit analysis on the basic attendance data in comparison to the usual significance test via ordinary least squares (OLS). An obtained value of _t_ greater than about +2.0 is significant at the .05 level of chance, about 2.5 at the .01 level, 7.0 at the .0000000001 level and 15 at the .1 x 10 -30 level. Several conclusions from the table emerge:

1) Education continues to be far and away the most statistically significant predictor of all forms of arts attendance.

2) Age is a significant predictor of attendance at jazz, classical music, opera, musicals and play performances; probit analysis, (but not OLS) suggests it is important for art museum attendance as well.

3) Gender is a significant predictor, except for jazz performances.

4) Race is a significant predictor, although least so for opera performances.

5) Income is a significant predictor for musicals, less so for plays and art museums; it is barely so for classical music and for ballet, and not a significant predictor at all for opera.

Virtually the same conclusions are reached by this probit analysis, then, as by the usual OLS procedures. Some exceptions are that the probit analysis suggests that income is a significant predictor of ballet attendance while OLS does not, and that age is a significant predictor of art museum attendance, while OLS does not. On the other hand, probit analysis suggests that income is not a significant predictor of jazz attendance, while OLS suggested it is a statistically significant predictor.

In relation to the Table 3.4 analysis, probit analysis indicates that the slight income effects of jazz attendance are not significant, but that income effects are significant for classical music, ballet and art museum attendance. It confirms the significance of the modest differences by age, by gender, and by race, many of which show up as less than 2 percentage point differences in Table 3.3.

Table 4.6: Demographic Predictors of Arts Attendance:
Probit Analyses and Ordinary Least Squares t-Values

a) Probit Analysis t values

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums
Income	.3	3**	1.9	12***	7***	2.7**	7***
Age	18***	6**	7**	5**	5**	.1	3**
Education	21****	37****	18****	36****	34****	21****	42****
Gender	.4	11***	4**	11***	8***	12***	8***
Race	7***	6**	2.4*	7***	6**	4**	5**

b) Ordinary Least Squares t values

Income	3**	2.5*	1.8	11***	6**	1.9	6**
Age	16***	9***	7***	7***	7***	1.3	.1
Education	22****	40****	19****	38****	37****	22****	46****
Gender	.6	9***	4**	10***	8***	11***	8***
Race	7***	5***	1.6	5**	5**	3**	4**

**** Significant beyond .0000000000000001 level
*** Significant beyond .0000000001 level
** Significant beyond .01 level
* Significant beyond .05 level

7) FACILITY DIFFERENCES IN TYPES OF PERFORMANCES

The types of performances examined in Chapter 3 take place in different types of facilities. Some facility-performance patterns are obvious, such as concerts that take place in concert halls and jazz performances that take place in nightclubs.

Nonetheless, much "blending" of arts performance types occurs across types of facilities (such as when jazz is played in concert halls) and trends in multiple facility use for arts across time is a situation worth monitoring. Beyond these obvious performance-location patterns, then, there are interesting differences and similarities in where different performances are held and that was the purpose of including a specific SPA question on location/facilities of performances in four of the survey months. Such data were available, then, for about a third of the total sample.

These differences and similarities are shown in Table 4.7 in two formats. The reason for the two formats is that the location/facility questions for all arts performances each respondent attended were combined, rather than recorded separately for each type of performance. Thus, if a respondent went to a jazz performance and to a ballet, it is impossible to determine with which location response in the follow-up facility question it was matched.

Each type of performance, then, could not be matched with the way the location question was asked in the survey. Our hypothetical respondent might have checked "nightclub" and "concert hall", but the analyst cannot say for certain whether it was the jazz performance or the ballet that took place at the nightclub or at the concert hall.

Thus, in the top half of Table 4.7, the data are first arranged on a facility basis. This answers general questions such as, "What proportion of all respondents who mentioned attending a jazz performance also mentioned going to a college facility?" Again, that is not to say that it was the jazz performance that took place at the college facility for those 31% of respondents who said "yes" to attending a jazz performance; some of these respondents also said they had attended an arts performance at a college facility (perhaps to see a ballet or a play, if they had also attended these arts performances). Thus, the figures for facilities in Table 4.7a cannot be targeted to specific performances.

The figures in Table 4.7b are more directly tied to specific types of facilities since they include respondents who only went to jazz performances, or only a ballet. The limitation of Table 4.7b, then, is that it excludes respondents who went to more than one type of arts performance in the previous year (e.g., jazz and ballet; or jazz and opera). Moreover, the majority (over 80%) of attendees at one type of performance did mention attending another type of arts activity performance.

Nonetheless, there are clear convergences in the two sets of numbers. Thus, both tables agree that the major facilities and locations across all types of performances are in concert halls (28%), theatres (14%), open-air failities (15%), and college campuses (7%); relatively few live arts performances took place in YMCA's (.1%), libraries (.6%), nightclubs (3.6%), or churches (2.9%).

When cross-tabulated by performance type, the following patterns of type of arts by facility emerged:

1) Jazz performances tend to take place in nightclubs, concert halls

and parks--and to a lesser extent college facilities. They rarely take place in museums or in facilities, such as YMCA's, libraries and museums.

2) Classical music performances take place mainly in concert halls. They also frequently take place in educational facilities (colleges, high schools and grade schools) and in open-air facilities. Like jazz performances they rarely take place in YMCA's, libraries and museums.

3) To a greater extent than classical music, operas take place in concert halls and theatres. Unlike classical music performances, operas less often take place at educational institutions.

4) Musical stage plays, unlike opera, take place more in theatres than in concert halls and are seen less often in open-air facilities.

5) Non-musical stage plays are more likely to be seen in theatres and concert halls.

6) Ballet performances are seen more often in concert halls and at high school facilities but rarely in theatres. Ballet is also seen more often in outdoor locations than are musical or non-musical stage productions.

Tabulated on the reverse basis (which emphasizes the main types of performance that take place at educational facilities, YMCA's, etc.), certain other patterns appear:

1) College facilities are more frequently a locale for classical and jazz music than for other art forms.

2) High schools are main performance areas for ballet and classical music; and grammar schools are main areas for art exhibits.
3) Concert halls are used more for ballet and for opera than for other art forms.
4) Theatres are most often used for musicals, plays, and opera.
5) Nightclubs are not a major locale for most arts performances, outside of jazz performances.
6) To the extent libraries are used, they are mainly a site for classical music performances.
7) Open-air and park facilities are most often used for opera and for jazz performances, and less often for plays and musicals.

In general, then, there is a good deal of "blending" across these types of facilities and types of performances, and this blending may well increase in the years ahead if convenient arts locations become in shorter supply or people are increasingly attracted to arts facilities serving multiple functions.

Table 4.7a: Facilities in Which Arts Performances Are Attended: Unweighted Percentage of Attendees Mentioning Each Type of Facility

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	TOTAL***
n =	(537)	(694)	(137)	(1,033)	(636)	(239)	
Location*							
College facility	31%**	33%	29%	24%	33%	33%	7%
Elementary, high school	9	16	13	12	13	16	3
Church, other religious	8	18	13	10	12	11	3
YMCA, YWCA, etc.	/	1	0	1	1	/	/
Concert hall, auditorium	51	58	75	47	49	67	14
Theatre, dinner theatre	36	42	52	58	62	54	14
Nightclub, coffee house	30	11	12	11	14	13	4
Library	3	4	6	2	3	3	1
Art Gallery/ Museum	16	17	25	13	16	22	3
Park, open-air facility	31	23	25	18	19	26	5
Other	3	3	2	2	2	3	4

* Percentages with columns can exceed 100%, since multiple mentions were permitted.

** Interpretation: Of the 537 respondents who reported attending a jazz performance, 31% also reported attending some arts performances at a college facility (not necessarily a jazz performance).

*** Percent of total sample that attended performance at facility.

/ Less than 0.5%.

Table 4.7b: Facilities in Which Arts Performances Are Attended: Weighted Percentage of Respondents Attending Only One Type of Performance Who Mention Each Type of Facility

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet
n=	(1436)	(913)	(94)	(2464)	(808)	(148)
Location						
College facility	12%*	20%	0%	10%	11%	5%
Elementary, high school	2	18	0	8	5	18
Church, other religious	1	12	0	2	6	0
YMCA, YWCA, etc.	0	0	0	0	0	0
Concert hall, auditorium	29	36	42	22	21	42
Theatre, dinner theatre	10	8	28	50	55	7
Nightclub, coffee house	23	4	0	3	3	0
Library	1	4	0	0	1	0
Art Gallery/ museum	0	1	0	0	0	0
Park, open-air facility	20	16	19	9	4	12
Other	3	2	0	1	0	0

* Interpretation: Of those respondents who only reported attending a jazz performance, 12% said they attended at a college facility.

8) DIFFERENCES IN ATTENDANCE PATTERNS BY DETAILED GEOGRAPHICAL BREAKDOWNS

Chapter 3 presented differences in attendance patterns by the standard breakdown of the country into four geographic regions: Northeast, Northcentral, West and South. There was a further breakdown of the population into three categories on the SMSA variable within central cities of SMSA's, areas outside of central cities in SMSA's (mainly suburban populations) and non SMSA areas.

Because of the strict guarantees of confidentiality observed by the U.S. Bureau of the Census with regard to respondent information, a special set of cross-tabulations and MCA's was prepared using the Census Bureau's computer (to maintain respondent confidentiality). The following 24-category breakdown by geography and urbanicity is used to show both regional and metropolitan differences:

	Northeast	Northcentral	West	South
SMSA City	1 New York 3 Philadelphia 5 Boston area 6 Other cities	9 Detroit area 10 Chicago area 11 Other city	14 San Francisco -Bay area 15 L.A. area 16 Other city	19 Balt.-Washington 20 Houston-Dallas 21 Atlanta-Miami-Orlando 22 Other city
SMSA non city	2 N.Y.suburbs 4 Philadelphia region 7 Other non city	12 Other non city	17 Other non city	23 Other non city
Non SMSA	8 Non SMSA in Northeast	13 Non SMSA in Northcentral	18 Non SMSA in West	24 Non SMSA in South

In order to further preserve respondent confidentiality, sample size information for each category was not provided by the Bureau of the Census, and thus it is impossible to say whether the differences observed in Table 4.8b are statistically significant or not. It also needs to be noted that this national sample was not designed to be representative of respondents in these particular regional areas and may include some unknown bias due to uncontrolled sources of variation for that reason. The MCA controls on the other hand, are intended to adjust for such disparities in types of people who live in these different areas.

Simple unadjusted differences in reported attendance percentages for each type of performance are shown in Table 4.8a. Table 4.8b on the other hand, shows the differences across these 24 geographical regions after adjustment for education, age, sex, income, marital status, number of children, race and work hours.

With regard to jazz performances, it can be seen that after adjustments respondents in the Detroit area reported highest attendances, followed by the San Francisco Bay area, other cities and suburbs in the West, smaller cities in the South, suburbs in the Northeast and New York City. Most of these areas had also shown above average attendance figures prior to adjustment as well. Areas or regions showing lowest attendance at jazz performances were the Philadelphia region, the Baltimore-Washington area, and the non SMSA areas in the West and Northcentral regions. After adjustment, attendance at jazz performances ranged from almost 15% in the Detroit area to 4% in the Philadelphia region.

After adjustment for other factors, the proportion of respondents reporting attendance at classical music performances was highest in Boston and in the smaller cities in the West and Northcentral areas (consistent with the differences that were apparent before adjustment). Lowest attendance at classical music performances was reported by residents of the Philadelphia region, of the New York City suburbs and of the Baltimore-Washington area. Attendance varied between almost 19% in the smaller cities in the West and just over 7% in the Philadelphia suburbs.

Opera attendance was reported at a considerably higher rate among residents of New York City, the Bay area and in Texas cities than in other parts of the country; it was also above average in the Detroit, Chicago and Baltimore-Washington areas. It was below average in the Philadelphia regions and in the non SMSA areas of the West and South. Attendance percentages ranged between almost 10% in New York City and than 2% in the Philadelphia region.

The attendance rate at operettas and other musical productions is also far higher for residents of the New York City area than in any of the other areas. It is also higher among residents of the New York City suburbs, the Philadelphia, Detroit, Chicago, Los Angeles, the San Francisco Bay area, and the Baltimore-Washington area. Attending such musical performances is lowest in the non SMSA areas in the West, and South and in smaller Southern cities. Attendance figures vary between 33% in New York City and less than 12% in the non SMSA areas in the West.

Rates of attending (non-musical) stage plays are once again highest among residents in New York City and its suburbs, as well as in the Boston area and in smaller suburbs in the Northcentral region. It is lowest in smaller cites in the Northeast and in the non SMSA areas of the West. Attendance at plays ranges from over 22% in New York City to just over 7% among residents of smaller Northeast cities.

New York City residents also report highest rates of attendance at ballet performances. Residents of the Boston, San Francisco Bay and Baltimore-Washington areas, and people residing in smaller cities in the Northeast and West also report above average ballet attendance. Below average attendance was reported by residents of Philadelphia suburbs, Detroit, and non SMSA areas in the West. Attendance varies between almost 10% in New York City and below 2% in non SMSA areas in the West.

Visiting art galleries and museums is reported at higher rates among residents in such larger cities as New York, Boston, San Francisco, and particularly Baltimore-Washington; it is higher in smaller cities in the Northeast and West as well. It is below average in non SMSA areas in the South and Northcentral regions, in Southeastern cities (Atlanta, Miami and Orlando) and in Detroit and smaller Northeast cities. Attendance at art museums and galleries varies between 30% in the Baltimore-Washington area and 16% in non SMSA areas in the South.

Differences in proportions reading novels, poetry, short stories and plays are relatively smaller than for the attendance data for live performances. Highest literature reading rates (again adjusted for education and other factors) were reported by respondents in New York City and Boston -- and in all locations in the West outside of San Francisco and Los Angeles. Lowest reading rates were reported in Houston-Dallas-Fort Worth, in the non SMSA areas in the South, in Northeast suburbs (including Philadelphia regions). Percentages reading novels, short stories, etc. varied from 65% in New York City to 46% in the Texas cities.

Overall, then, the most distinctive area as far as arts participation was concerned was New York City. New York City residents reported very high or above average rates for all arts activities; that was least true for classical music performances. Residents of Detroit reported highest attendance rates at jazz performances, and were above average in attending opera and musicals, but below average in visits to art museums and ballet attendance. Washington-Baltimore residents were highest in art gallery/museum going, and were also high in rates of attending opera and musicals; but they were below average in rates of attending jazz and classical music performances. Residents of the Boston and San Francisco Bay areas also reported notably above average attendance at certain types of performances (namely jazz, musicals and opera for Bay area residents; classical music, ballet and theatre for Boston; and art museums in both).

Table 4.8a: Arts Participation by Regional-Metropolitan Locations: Percentages of Respondents Attending

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Reading
GRAND MEAN:	10%	13%	4%	19%	12%	4%	22%	56%
Northeast								
1 N.Y.C.	12	14	10	33	22	10	27	65
2 N.Y.C. suburbs	9	13	6	29	18	6	23	60
3 Philadelphia area	8	14	3	25	13	4	20	55
4 Phil. regions	3	5	1	19	12	1	20	50
5 Boston area	9	18	3	22	16	7	30	62
6 Other NE, CC*	10	11	3	20	10	5	17	55
7 Other NE, not CC	8	14	3	19	8	5	20	55
8 Other NE, not SMSA	9	15	2	17	12	4	20	59
Northcentral								
9 Detroit	14	16	6	26	13	2	21	57
10 Chicago	12	14	6	23	14	4	25	58
11 Other NC,CC	13	17	3	18	16	4	25	58
12 Other NC,not CC	11	16	3	20	11	5	23	63
13 Other NC,not SMSA	6	11	3	14	10	2	17	56
West								
14 Bay area	16	14	8	27	13	7	32	64
15 L.A. area	10	12	4	24	15	5	24	59
16 Other West, CC	15	22	5	25	16	7	32	68
17 Other West,not CC	14	18	4	25	16	5	34	66
18 OtherWest,not SMSA	6	15	2	13	10	2	26	65
South								
19 Balt-Wash are	9	14	7	27	17	8	36	61
20 Texas cities	11	14	7	18	13	5	23	47
21 Flor-Georgia cities	12	12	4	18	13	5	19	59
22 Other South, CC	14	12	3	17	11	6	26	54
23 Other South,nonCC	9	12	4	14	10	4	22	54
24 OtherSouth,notSMSA	5	7	1	9	6	1	11	42

* CC = SMSA Central City

Table 4.8b: MCA Adjusted Arts Participation by Regional-Metropolitan Locations: Percentages of Respondents

	Jazz	Classical Music	Opera	Musical	Plays	Ballet	Art Gallery/ Museums	Reading
Grand Mean =	10%	13%	4%	19%	12%	4%	22%	56%
Northeast								
1 N.Y.C	12	13	10	33	22	10	27	66
2 N.Y.C. suburbs	8	10	5	25	15	5	20	56
3 Phil.	8	14	3	25	13	4	21	56
4 Phil. suburbs	4	7	2	20	13	2	22	52
5 Boston area	8	17	4	21	15	7	29	61
6 Other NE,CC	12	13	3	23	12	6	20	58
7 Other NE,not CC	8	13	3	17	7	5	18	52
8 Other NE, not SMSA SMSA	10	15	3	18	13	4	21	60
Northcentral								
9 Detroit	15	15	6	24	11	2	20	55
10 Chicago	11	14	5	22	13	4	24	58
11 Other NC,CC	12	17	3	19	16	4	25	58
12 Other NC,not CC	11	15	3	18	10	5	21	60
13 Other NC,not SMSA	8	13	3	16	12	3	20	58
West								
14 Bay area	13	11	7	23	9	6	27	58
15 L.A. area	9	11	4	23	14	5	22	57
16 Other West, CC	13	19	4	22	13	6	29	63
17 Other West,not CC	12	14	3	21	13	4	29	60
18 Other West,notSMSA	7	14	2	12	10	2	25	63
South								
19 Balt-Wash area	7	10	6	22	13	6	30	57
20 Texas cities	10	14	7	18	14	5	22	47
21 Flor-Georgia	11	12	4	19	13	5	19	59
22 Other South, CC	12	12	3	18	11	6	26	54
23 Other South,notCC	10	12	4	15	11	5	23	55
24 Other South, SMSA	7	10	2	13	9	2	16	50

* CC - SMSA Central City

9) DIFFERENCES IN REPORTED PARTICIPATION BY DETAILED OCCUPATIONAL CATEGORIES: A PRELIMINARY EXPLORATORY ANALYSIS

Occupation was one of the major predictor variables examined in Chapter 3. However, the 12-category occupational code used in Chapter 3 obviously obscures many important variations within these occupational categories. This would seem especially true within the "professional" category, which includes occupations as diverse as doctors and engineers or clergymen and entertainers.

Given this diversity within occupational categories and the unprecedently large sample that made more detailed breakdowns possible, a preliminary study of some of the broader variations in arts participation was conducted using the detailed occupation Census Bureau code employed in this survey. In order to keep this exploratory analysis manageable, the 500+ code categories that the Census Bureau employs to code occupation were recombined at the University of Maryland into 58 rough categories. This includes 58 detailed occupational groups such as farm owners, office secretaries, restaurant managers, etc. plus one residual category for all respondents who were not in the paid labor force; this category thus includes full-time homemakers, students as well as retired and disabled people.

The 58 rough groupings were developed around the following general criteria:

1) Each group should represent a substantial number of respondents — at least around 1% of the labor force.

2) Each group should combine individuals in adjacent occupational categories in the Census Bureau codes (e.g. chemical engineers with civil engineers, auto mechanics with office machine repairmen, truck drivers with bus drivers) as these are grouped in the 500+ detailed occupation code that the Census Bureau has developed (see Appendix C).

3) Combinations were made only within the existing 12 broad Census Bureau master categories; that is, insurance agents and advertising agents were kept in the same "sales" category, even though our grouping of occupations separated both of these sales personnel from retail sales clerks; sales clerks are another another occupational group in the general sales category of the Census occupation listing as found in Appendix C.

The 58 categories that we developed within these guidelines are shown in Table 4.9, along with the Census Bureau occupation codes they include.

Our recoding scheme for the original 500+ occupation categories used by the Census Bureau is also shown in Appendix C. As can be seen in that Appendix, the following kinds of distributions were maintained in this coding scheme:

-Within professionals, there are 17 different categories that range from arts-related professionals (e.g. musicians, artists) to counseling professionals (e.g.social workers, ministers) to engineers to accountants; note that social scientists are kept separate from physical scientists, as are elementary from high school from college teachers; and health technicians from engineering technicians from other kinds of technicians.

-Within the managerial category, administrators and officers are kept separate from managers, and restaurant managers separate from other types of managers.

-Within the sales category, retail sales clerks are kept separate from advertising/insurance/real estate sales workers and from other types of sales workers.

-Within the clerical category, separate categories are provided for secretaries, for receptionists, for communication workers (e.g., telephone), and for "record-keepers" (e.g., bookkeepers).

-Within the skilled crafts category -- auto mechanics, carpenters, plumbers, electricians, etc. are kept in separate categories, as are all apprentice categories. A separate category was created for "artisans" -- jewelers, decorators, sign painters, etc.

-Within the "operative" semi-skilled blue collar category, precision machine operators are kept separate from textile workers and from transportation workers, such as cab drivers, truck drivers or other transport workers.

-Farm laborers are kept separate from farm owners.

-With regard to service workers, eight different categories are distinguished: 1) waiters; 2) protective (police, army, etc.); 3) health aides; 4) other food workers (dishwashers, etc.); 5) attendants with minimal training (such as bootblacks or elevator operators); 6) private houshold; 7) cleaning; 8) "personalized service attendance". In this last category we have included cooks, bartenders, practical nurses, airline stewardesses, hairdressers, etc., or those employed in service work that seems to involve a greater amount of specialized and skilled service.

A final category (code 58) includes workers not classified into any of the above categories.

Arts participation was measured in terms of the straightforward index of how many of the seven types of arts events the respondent attended. A respondent who went to an opera and to a stage play would obtain a score of two. Possible scores on the index range from zero (which was the score obtained by 60% of respondents) to seven (if the respondent attended all seven types of arts performances). As noted at the top of Table 4.9, the overall average number of performance types attended was less than one (0.83 to be more precise). This index was used rather than an eight-item overall index, because reading was seen as being of less importance here.

In the first column, it can be seen that prior to adjustment for education, index scores across occupations vary between 2.72 for college teachers and .11 for operative workers in textile manufacturing. Within each of the major occupational categories, some further notable differences are found, before adjustment for other factors.

-Professionals show the most interval variation; index scores range from 2.72 for college teachers, 2.51 for social scientists and 2.42 lawyers/judges at the top, down through to the engineering technicians (1.03) and to engineers (1.37).

-Administrators (1.68) were higher on the index than managers (1.22), and especially restaurant managers (.68).

-More specialized sales workers (in real estate, insurance or advertising) were higher on the index (1.68) than other sales workers, especially retail sales clerks (.88).

-Secretaries were higher (1.17) than other clerical workers on the index, especially those in clerical jobs involving communication, such as messengers (.63).

-While most skilled workers were in the .50 range on the index, those who were in the artisan category (e.g., decorators, jewelers) were at 1.64 on the index.

-While most semi-skilled operative workers score in the .30 to .40 range on the index, textile operators were at .11.

-Only two service worker categories (household and cleaning personnel) were as low as workers in lower blue collar occupations. Most service workers fall in the .70 to .90 range, with the score rising to 1.49 for those service workers providing more personalized service, such as hairdressers or bartenders.

In general, then, there are important wide variations in attendance patterns within the broad occupational categories in Chapter 3. These need to be considered in assessing the role occupation plays in arts participation.

Not all of these differences remain after controlling for the respondent's education, as shown in the second column in Table 4.9. After both factors are controlled simultaneously, the overall differences in arts participation explained by occupation drops by almost 75%, while that for education drops only by about 10%. The larger differences by occupation after MCA control can be described as follows:

	Professional	Other White Collar	Blue Collar	Service Workers
Very high (over 1.50)	Arts-related College teachers Social scientists	--	Artisans	--
High (.83 - 1.50)	Lawyers	Advertising/ Insurance Other clerical	--	Personalized attendants, Waiters
Low (below .83)	Engineers Technicians	--	--	--

In other words, most of the variation in blue collar and service categories is eliminated after controlling for education, with no such groups being less than about .50 on the index after control. Engineers and engineering technicians are markedly lower than other professionals, especially academics in the arts and humanities and social sciences -- and college teachers in general. Engineers appear more similar to blue collar workers than to other professionals in terms of their arts participation.

Table 4.9: Arts Participation Indices by Detailed Occupational Codes, Before and After MCA Adjustment

Grand Mean	0.83	0.83

Occupation:*

	Unadjusted	Adjusted
Professional		
Arts-Related	2.13	1.69
College Teachers	2.72	1.73
Librarians	1.79	1.02
Physician or Scientist	1.92	1.06
Social Scientists	2.51	1.61
Lawyers, Judges	2.42	1.43
Physicians	2.06	1.02
Secondary School Teachers	2.05	1.16
Primary School Teachers	2.04	1.19
Counseling	1.77	1.12
Nurses	1.48	1.01
Computer Specialists	1.62	1.06
Engineers	1.38	.72
Health Technician	1.44	.96
Engineering Technician	1.03	.79
Other Technicians	1.62	.94
Managerial		
Accountants	1.41	1.00
Administrators	1.64	1.06
Managers	1.22	1.00
Restaurant Managers	.68	.64
Sales/Clerical		
Advertising	1.68	1.23
Other Sales	1.29	1.06
Sales Clerk Retail	.88	.87
Supervisors	1.25	1.08
Public Contact	.82	.81
Secretarial	1.17	1.12
Communication	.63	.64
Record Keepers	.91	.89
Machine Operators	.91	.93
Other Clerical	1.23	1.12
Skilled		
Artisans	1.64	1.50
Foreman	.53	.63
Carpenters	.49	.67
Painters	.45	.55

Electricians	.67	.69
Plumbers	.39	.50
Auto Mechanics	.39	.61
Other Mechanics	.50	.58
Semi-Skilled (Operative)		
Apprentices	.39	.57
Precision	.36	.61
Textile	.11	.49
Other Operatives	.34	.63
Cab Drivers	.42	.66
Truck Drivers	.32	.58
Other Transport	.34	.53
Other Laborers	.46	.63
Farm		
Farmers	.38	.48
Farm Labor	.42	.65
Service		
Waiters	.90	.99
Protective	.62	1.14
Health Aides	.68	.72
Other Food Related	.68	.86
Private Household	.28	.65
Attendants	.74	1.40
Cleaning	.41	.68
Personalized Attendants	1.46	.87
All Other Occupations	.87	.58
Non-Labor Force	.55	.78

* See text and Appendix C.

10) DIFFERENCES IN ARTS PARTICIPATION BY OTHER BACKGROUND FACTORS

The larger Census Bureau Survey collects background information from respondents on a wide variety of topics. Chapter 3 has examined the eleven factors that seemed most relevant to arts participation, such as education, age, family composition, etc.. In this chapter, we have so far examined several other factors: month of survey, geography, and occupation.

This section examines eight additional background variables in the Census Bureau Survey for which variation in arts participation can be examined. Most of these have to do with characteristics of the dwelling unit in which the respondent resides: What is the number of adults living in the household? Is the household a single-family dwelling unit (house) that stands alone, or (if not) is it a duplex , row house or part of an apartment complex? Is it a mobile home? Is it being rented or bought?

Other questions ask about household possessions related to the dwelling unit, such as automobiles or telephones. Information is also available on the size of the municipal unit (not the larger metropolitan area) in which the respondent lives: Do the boundaries of that municipal unit include over a million people or less than 200? Most SMSA areas included several municipal units of varying size. One municipal unit (surburban areas) ringing a city may have upwards of 100,000 people; it may be adjacent to a second municipal unit that has a size of place of less than 100 people. These were not separated in the SMSA code used in Chapter 3.

Other factors include whether the respondent is a member of the armed forces or not, or whether the interview was conducted over the phone or in person.

Table 4.10 examines variation in the index of participation in the seven core activities by these ten factors -- both before adjustment (Table 4.10a) and after adjustment for five major factors (age, education, ethnic-racial group, income and urbanicity) in Table 4.10b. The adjusted figures in Table 4.10b reveal the following patterns:

> Household Type: Arts attendance is slightly higher overall among residents of multiple family units (mainly apartments) than among residents of "detached single-family units" (i.e. houses) and in mobile homes than in multiple family units. And there is some tendency for overall attendance to be higher in progressively larger apartment buildings: from .88 in two-unit structures to .98 in three-unit structures to 1.06 and 1.00 in four-unit and five-unit apartment buildings, all the way up to 1.20 for apartment buildings with more than 10 units. These pattern differences in Table 4.10 once again hold after control for age, income, education, and urban-rural differences between house and apartment dwellers. Such a systematic and regular pattern suggests a role that attending arts performances may play in allowing residents of larger apartments to "get away" from their more uniform residences to attend culture in more spacious surroundings. (There are too few respondents living in transient hotels, rooming houses, etc. to suggest whether living in these types of facilities relate to participation.)
>
> Household Tenure: Individuals who own or are buying their homes attend arts events at about a 10% higher rate on the index than people who rent. This difference again holds after control for income and type of household, so it is not simply a result of renters having lower income or living in larger apartment buildings.
>
> Automobile Ownership: Ownership of automobiles appears to have no direct or systematic relation to attending arts performances, after adjustment for other factors.
>
> Telephone Ownership: Respondents who had no telephone in their housing unit reported above a 20% lower participation rate than respondents who had a telephone in their housing unit. Thus, telephone ownership seems a more important factor in higher arts attendance rates than car ownership.
>
> Household Size: Respondents living in households with more adults (over age 18) report lower participation than those with fewer adults in the household. After adjustment, the pattern in index scores are as follows: one adult only (1.15), two to four adults in the household (.78), five-six adults (.64), seven or more adults (.45). It would appear therefore that having more adults in the household is an inhibiting factor on arts participation -- other things being equal. Similarly, if one is a child or relative in a housing unit one is less likely to be an arts attendee. However, if one is a non-relative in the household, one is more likely to participate in arts events -- perhaps providing an opportunity to spend time in a more

spacious environment.

Interview Mode: Respondents interviewed by telephone indicated they attended more arts performances than those interviewed in person, but that difference was insignificant after control for other factors. (People interviewed by phone were also not at home during the times of the in-home interview, indicating they simply were more likely to be away from home for other activities besides the arts; this is again consistent with the "more-more" principle.)

Place Size: In general the larger the place, the greater the attendance rates, going from an index score of 1.04 for respondents living in communities of one million or more inhabitants to .53 for those (few) respondents who lived in communities of less than 200 inhabitants. A slightly below average index score (.76) was found for respondents living in unincorporated areas with no central population. It is important to note once again, however, that place size refers to the local municipal area and not to the metropolitan hub to which it may be attached. In other words, a small city of 30,000 residents that stands alone in the middle of a rural area is in the same category as a suburb of 30,000 which is part of a large city like New York or San Francisco (which is what is reflected in the 3-category SMSA variable employed in the Chapter 3 analysis).

Armed Forces: After control for other factors, members of the armed forces are about 10% less likely to attend arts performances than members of the civilian population.

In general, then, certain of these "minority groups" of individuals (apartment dwellers, non-relatives, telephone non-owners, renters, residents of larger areas, armed force members) show patterns of arts participation that deviate above or below the average participation rates for other individuals in SPA'82 and these differences deserve further explanation and analysis. They suggest some potentially important theoretical and practical factors that seem to enhance or to constrain arts attendance.

Table 4.10a: Arts Participation Indices by Other Background Factors

Grand Mean = .83

Telephone in housing unit	
Yes, in the unit	.85
Yes, outside unit	.58
No phone connection	.31
Automobiles	
None	.83
One	.79
Two	.82
Three	.80
Four or more	.83
Housing Units in Building	
One, single-family	.80
Two	.90
Three	.82
Four	1.04
Five to nine	1.02
Ten or more	1.32
Mobile home, trailer	.25
Only other units	1.55
Type of Dwelling Unit	
House,apt,flat	.85
Non-transient hotel	.82
Perm hous tr hotel	.48
Rooming house unit	1.70
Mobile home, trailer	.36
Other housing unit	.98
Type of Interview	
Personal	.81
Telephone	.89
Armed Forces Member	
Yes	.93
No	.88
Not ascertained	.49
Relative	
Reference person	.82
Spouse of ref person	.85
Own child	.77
Other relative	.48
Nonrelative	1.33
Number of Adults Over 18 Years of Age	
One	1.01
Two	.82
Three	.78
Four	.76
Five	.55
Six or more	.30
Population	
Under 200	.39
200 to 499	.50
500 to 999	.62
1,000 to 1,499	.48
1,500 to 1,999	.35
2,000 to 2,499	.45
2,500 to 4,999	.64
5,000 to 9,999	.77
10,000 to 19,999	.89
20,000 to 24,999	.81
25,000 to 49,999	.96
50,000 to 99,999	1.08
100,000 to 249,999	.81
250,000 to 499,999	1.14
500,000 to 999,999	.99
1,000,000 or more	1.14
Unincorporated area	.91

Table 4.10b: MCA-Adjusted Arts Participation Indices by Other Background Factors

Grand Mean = .83

Telephone in housing unit	
Yes, in the unit	.84
Yes, outside unit	.82
No phone connection	.66
Automobiles	
None	.83
One	.85
Two	.82
Three	.81
Four or more	.83
Housing Units in Building	
One, single-family	.79
Two	.88
Three	.96
Four	1.04
Five to nine	.98
Ten or more	1.18
Mobile home, trailer	.71
Only other units	.97
Type of Dwelling Unit	
House,apt,flat	.83
Non-transient hotel	.86
Perm hous tr hotel	.52
Rooming house unit	1.50
Mobile home, trailer	.69
Other housing unit	.90
Type of Interview	
Personal	.82
Telephone	.85
Armed Forces Member	
Yes	.74
No	.84
Not ascertained	.74

Relative	
Reference person	.82
Spouse of ref person	.85
Own child	.77
Other relative	.48
Nonrelative	1.33
Number Over 18 Years	
One	1.15
Two	.78
Three	.80
Four	.77
Five	.61
Six	.60
Population	
Under 200	.53
200 to 499	.62
500 to 999	.75
1,000 to 1,499	.67
1,500 to 1,999	.63
2,000 to 2,499	.69
2,500 to 4,999	.75
5,000 to 9,999	.84
10,000 to 19,999	.90
20,000 to 24,999	.77
25,000 to 49,999	.92
50,000 to 99,999	.89
100,000 to 249,999	.74
250,000 to 499,999	.96
500,000 to 999,999	.89
1,000,000 or more	1.04
Unincorporated area	.76

* The background factors are age, education, ethnic-racial group, income, and urbanicity.

11) HOUSEHOLD PARTICIPATION AND INDIVIDUAL PARTICIPATION

One unique advantage of the fact that SPA'82 data were designed to be collected from all members of the household is that it makes it possible to examine the extent to which participation by one household member may affect participation by another. In particular we can examine the extent to which married people's arts participation is an activity that is done jointly or an activity done individually. In this section, then, we examine cross-cutting information from different respondents in the household: if one spouse in the household says that he (she) attends a particular arts performance, does the other spouse say that she (he) participates when asked the same participation question?

These cross-tabulated data are arrayed in Table 4.11 by whether the respondents and spouses attended the same type of event. In the case of attending live jazz peformances, for example, it can be seen in the first column of Table 4.11 that 56% of respondents whose spouse reported attending a live jazz performance also independently reported that they had attended a live jazz performance (not necessarily the same live jazz performance). In contrast, only 2% of respondents whose spouse reported not attending a jazz performance themselves reported attending such a performance; the rate of participation for those with no spouse, on the other hand, was 13%, or four percentage points higher than the average and 11 points higher than respondents whose spouses did not attend.

In the case of attending classical music performances, differences of a similar magnitude are found: 63% attendance if the spouse had attended and only 5% if not -- a 58 percentage point difference

Table 4.11: Rates of Arts Participation by Spouse's Participation, Before and After MCA Adjustment

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Reading
	9%	13%	3%	19%	12%	4%	22%	56%
Unadjusted:								
Spouse attended	56%	63%	56%	71%	66%	51%	66%	72%
Spouse did not attend	2	5	1	7	4	2	9	39
No Spouse	13	14	4	19	13	5	23	56
	--	--	--	--	--	--	--	--
Differential	54%	58%	55%	64%	62%	49%	57%	33%
Adjusted*								
Spouse attended	55%	56%	56%	65%	60%	49%	58%	65%
Spouse did not attend	3	6	1	8	5	2	11	44
No Spouse	12	15	9	20	13	5	24	56
	--	--	--	--	--	--	--	--
Differential	52%	50%	55%	57%	55%	47%	47%	21%

* Adjusted for the respondent's age, education, income and sex

Table 4.11a: MCA-Adjusted Rates of Arts Participation by Spouse's Participation: Men and Women Analyzed Separately

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Reading
	9%	13%	3%	19%	12%	4%	22%	56%
Men								
Spouse attended	56%	49%	50%	59%	55%	39%	54%	59%
Spouse did not attend	4	3	1	6	4	1	9	36
Women								
Spouse attended	55	64	62	71	65	68	62	76
Spouse did not attend	4	8	1	10	6	3	12	56

vs. the 54 point difference for jazz performances. For opera attendance, the differential is 55 points (56% vs. 1%) and for attending musical theatre, it is even higher, 64 points (71% vs. 7%). The differential remains similarly high for non-musical stage plays (62 points), for ballet (49 points) and for attending art museums (57 points). It is not as high for the final core arts activity, reading literature (33%); nonetheless, even for this more "private" arts activity, the rate of reading literature is almost twice as high among those whose spouses also read (72%) than among those whose spouses do not read (39%).

For each activity, then, if one's spouse engages in the activity, the likelihood is greater than 50% that the respondent will also participate. But the question again arises about how much these differentials are a function of mutually shared characteristics of husbands and wives, such as income, education and age.

This question is addressed by the MCA-adjusted results shown at the bottom of Table 4.11. It can be seen that these differentials are virtually as high as those found prior to MCA adjustment. The largest changes in differentials are only 10 points and 12 points (for attending art museums and reading literature respectively). Compared to the pre-post MCA changes in other predictors (see Chapters 5-10), this is a relatively small change. In other words, the factor of spouse's arts participation is a very robust predictor of a person's arts participation. Even after control for other demographic predictors, if one's spouse participates in an art form, the chances are usually over 50% that the respondent will also participate in the same art form.

Table 4.11a breaks these MCA-adjusted relations down separately for men and for women, by husbands and by wives. It can be seen that the conclusion about the importance of spouse participation continues to hold for both men and women. The numbers for husbands and wives need not be the same for non-spouse attendance because in general more women attend arts events than do men, and therefore wives could attend alone or with someone besides their husband. For that reason, the differentials in Table 4.11a, while showing the same phenomenon of much higher attendance of husbands (and wives) whose spouses attend, are higher for women than for men.

However, women also report higher attendance with their spouses than do men, which is an apparent inconsistency in reporting. This may mean that more women report participation in the arts than do men, or conversely that men report less. For example, 64% of wives whose husbands attend live classical music performances attend classical concerts compared to only an 8% rate among wives whose husbands do not attend; for husbands, the respective rates are lower in both categories: both among those whose wives attend (49%) and among whose wives do not attend (3%). The same is found for attending musicals, plays, ballet, and art museums; it also holds for reading.

Nonetheless, whatever the inconsistency or its source, participation is far higher if spouses attend than if not for both husbands and wives; and the difference is not simply a result of higher education, income or age levels among wives or husbands.

Chapter 5

OTHER CULTURAL AND LEISURE ACTIVITIES

Specific types of arts participation are often thought to reflect a particular type of life-style. It is easier to visualize a "cultured" opera attendee, for example, fixing a gourmet meal rather than fixing an automobile carburetor. If such stereotypes have any basis in fact, then arts participation constitutes but one element in a person's overall style of life. The SPA'82 study included a series of questions on recreational and leisure time activities, other than participation in the art forms discussed in Chapter 3. The objectives of these questions were (1) to compare the rates of participation in these other leisure activities with arts participation and (2) to classify the general life-styles of each respondent in terms of responses to these questions.

This chapter examines these questions and the tabulations of respondents' answers to them, aggregated for the months in which they were included in the survey. Further analysis of this information will address the following questions:

1) What is the extent of the public's involvement in these various recreational activities? The percentage of the population involved in each recreational activity can be estimated from the distribution of responses in the sample.

2) How do recreational activities differ among groups with different backgrounds? For example, what population groups are most likely to be involved in production work for plays, what groups are likely to be involved in gardening?

3) What are the most important factors in explaining differences in recreational activities? If respondents

from households with higher incomes are more likely to visit arts and crafts fairs, for example, is this tendency attributable to income differences or to the impact of other associated factors such as education?

4) Do recreational activities form clusters in terms of of an overall "life-style" of activity combinations? Is a person who pursues one type of activity (e.g., camping) more or less likely to pursue a second and third activity (e.g., movie-going and jogging)?

5) How does involvement in recreational activities differ by background factors? What are the social characteristics of people who tend to be more fully engaged in cultural, intellectual or aesthetic activity or in various activities at home? Are the best predictors of wider involvement also the most important explanatory factors?

6) How do various life-styles incorporate participation in the arts? Are certain recreational activities associated with arts participation, or does involvement in particular sets of recreational activities increase or decrease the likelihood of participation in the arts?

1) RECREATIONAL ACTIVITY QUESTIONS AND RESPONSES

In addition to the 10 core questions on arts participation discussed in Chapter 3, respondents in certain months of the survey were asked whether they were active in a variety of general leisure activities. These questions were all framed in terms of any involvement during the previous 12 months. One set of 14 questions (questions 23a-23n that were included in the March, September, and November surveys) asks about a wide range of general recreational activities:

- Attendance at movies, sports events, zoos or gardens, amusement parks
- Hobbies: games (card, electronic), collecting (e.g., stamps), preparing special meals, gardening
- Physical activities: exercise, sports, or outdoor recreation (e.g., camping)
- Reading (includes more general reading than reading of literature which is one of the core questions in Chapter 3)
- Volunteer work

- Home or vehicle repair

A second set of 12 questions (questions 24-35 asked in the May, November, and December surveys) concern more cultural activities: visits to non-art museums and historic sites as well as various arts and crafts activities:

- Visit to a (non-art) museum, to a historic site, or to an arts or crafts fair
- Read or listen to poetry
- Lessons in the arts
- Craft activities (including jewelry and sewing)
- Artistic activities (including photography)
- Nonperforming work for live arts performances
- Creative writing

The exact wording of these recreational activity questions, can be examined in Table 5.1.

Table 5.1 also shows the number of survey respondents who reported participating in each of these recreational activities. For instance, of the 5,571 respondents questioned in four survey months, 3,484 said they had gone to a movie, while 2,076 said they had not. The remaining 11 respondents did not give codeable responses. Note that the size of the sample is smaller (n=4,255) for the second set of questions (24-35), which were asked during only three of the survey months.

Table 5.1: Numbers of Respondents Reporting Participation in Recreation Life-Style Activities

(N=5571)

(N=4255)

RECREATION LIFE STYLE

23a. During the LAST 12 MONTHS, did YOU go out to the movies?
0 ☐ No 2076
1 ☐ Yes 3484 NA=11

b. Did you go to any sports events at all? Include both professional and amateur sports events, regardless of whether an admission fee was charged.
0 ☐ No 2879
1 ☐ Yes 2675 NA=17

c. Did you visit a zoo, arboretum, or botanical garden?
0 ☐ No 3766
1 ☐ Yes 1776 NA=29

d. Did you play card games, board games, electronic games, pinball, or any other similar games?
0 ☐ No 1430
1 ☐ Yes 3621 NA=20

e. During the LAST 12 MONTHS, did you go to an amusement or theme park, a carnival, or a similar place of entertainment?
0 ☐ No 2815
1 ☐ Yes 2739 NA=17

f. Did you jog, lift weights, walk, or participate in any other exercise program?
0 ☐ No 2693
1 ☐ Yes 2858 NA=20

g. Did you participate in any sports activity, such as softball, basketball, golf, bowling, skiing, tennis, or the like?
0 ☐ No 3372
1 ☐ Yes 2182 NA=17

h. Did you do any camping, hiking, canoeing, or any other similar outdoor activity?
0 ☐ No 3523
1 ☐ Yes 2032 NA=16

i. During the LAST 12 MONTHS, did you read books or magazines?
0 ☐ No 873
1 ☐ Yes 4681 NA=17

j. Did you do volunteer or charity work?
0 ☐ No 3987
1 ☐ Yes 1562 NA=22

k. Did you work on a collection such as stamps, coins, shells, or the like?
0 ☐ No 4721
1 ☐ Yes 835 NA=15

l. Did you prepare special gourmet meals for the pleasure of doing it?
0 ☐ No 3928
1 ☐ Yes 1622 NA=21

m. Did you make repairs or improvements on your own home or motor vehicles?
0 ☐ No 2245
1 ☐ Yes 3305 NA=21

n. Did you work with indoor plants or do any gardening for pleasure?
0 ☐ No 2174
1 ☐ Yes 3384 NA=13

OTHER PARTICIPATION

24. During the LAST 12 MONTHS, did you visit a science museum, natural history museum, or the like?
0 ☐ No 3270
1 ☐ Yes 971 NA=14

25. (During the LAST 12 MONTHS,) Did you visit an historic park or monument, or tour buildings, or neighborhoods for their historic or design value?
0 ☐ No 2671
1 ☐ Yes 1571 NA=13

26. (During the LAST 12 MONTHS,) Did you read, or listen to a reading, of poetry?
0 ☐ No 3396
1 ☐ Yes 846 NA=13

27. (During the LAST 12 MONTHS,) Did you visit an art or craft fair or festival?
0 ☐ No 2577
1 ☐ Yes 1666 NA=12

28. (During the LAST 12 MONTHS,) Did you take lessons or a class in literature, creative writing, art, photography, craft arts, ballet, music, or the like?
0 ☐ No 3790
1 ☐ Yes 453 NA=12

29. (During the LAST 12 MONTHS,) Did you work with pottery, ceramics, jewelry, or do any leatherwork, metalwork, or similar crafts?
0 ☐ No 3709
1 ☐ Yes 535 NA=11

30. During the LAST 12 MONTHS, did you do any weaving, crocheting, quilting, needlepoint, sewing, or similar crafts?
0 ☐ No 2836
1 ☐ Yes 1408 NA=11

31. (During the LAST 12 MONTHS,) Did you do any work in a musical or non-musical play, an opera, or a ballet production? Include working on lights, sets, costumes, promotion, etc., but not performing.
0 ☐ No 4123
1 ☐ Yes 119 NA=13

32. (During the LAST 12 MONTHS,) Did you do any work in a jazz or classical music performance? Include working on lights, sets, promotion, etc., but not performing.
0 ☐ No 4197
1 ☐ Yes 45 NA=13

33. (During the LAST 12 MONTHS,) Did you work on any creative writings such as stories, poems, plays, and the like? Exclude any writing done as part of a course requirement.
0 ☐ No 3968
1 ☐ Yes 274 NA=13

34. (During the LAST 12 MONTHS,) Did you make photographs, movies, or video tapes as an artistic activity?
0 ☐ No 3810
1 ☐ Yes 430 NA=15

35. (During the LAST 12 MONTHS,) Did you do any painting, drawing, sculpture, or printmaking activities?
0 ☐ No 3826
1 ☐ Yes 417 NA=12

2) POPULATION ESTIMATES OF INVOLVEMENT IN RECREATIONAL ACTIVITIES

After weighting to correct for any disproportionate representation in the sample by age, sex, or race, the responses shown in Table 5.1 can be generalized to population estimates. These estimates, expressed in terms of percentages and numbers, are found in Tables 5.2a and 5.2b. The estimates represent the proportion of the U.S. adult population involved in various recreational activities.

As shown in Table 5.2a, the levels of participation vary greatly for different recreational activities. A majority participate in certain activities such as movies, while only a small percentage participates in other activities such as creative writing. The highest levels of participation (approximately 60-80%) were found for reading books and magazines, playing games, going to the movies, gardening, and making home or vehicle repairs. Roughly half of the respondents reported exercising, attending a sports event, or going to an amusement park. Roughly a third to two-fifths claimed to have played sports, visited an arts or crafts fair, engaged in an outdoor activity (e.g., hiking), visited historic sites, engaged in needle crafts or visited a zoo or garden. About a fifth to a quarter of the respondents reported doing volunteer work, preparing gourmet meals, visiting a non-art museum, or reading or listening to poetry, while ten to fifteen percent said that they worked on collections, engaged in crafts such as pottery, took art lessons or classes, made photographs or movies, or engaged in arts activities such as drawing. Finally, less than ten percent of the respondents reported being involved in creative writing or working in a nonperformance capacity for an arts event.

The distribution of responses in the sample--after weighting for age,

Table 5.2a: Adult Participation in Various Recreational Activities in the Past 12 Months: Weighted Percentage Estimates

23 a)	Attend movies	63%
b)	Attend sports events	48
c)	Visit zoo	32
d)	Play games	65
e)	Visit amusement park	49
f)	Exercise	51
g)	Play sports	39
h)	Outdoor activities	36
i)	Read books, magazines	84
j)	Volunteer work	28
k)	Collecting	15
l)	Prepare gourmet meals	29
m)	Repair home, car	60
n)	Gardening	60
24.	Visit non-art museum	23
25.	Visit historic sites	37
26.	Read poetry	20
27.	Visit arts/crafts fair	39
28.	Take art classes	11
29.	Craft activities: pottery, ceramics, jewelry, etc.	12
30.	Needle crafts	32
31.	Backstage theatre help: play, musical, opera, ballet	3
32.	Backstage music concert help	1
33.	Creative writing	7
34.	Artistic photography, video	11
35.	Painting, drawing, sculpture, printmaking	10

sex, and race--can be generalized to provide population estimates of the number of Americans involved in each activity. These estimates are presented in Table 5.2b.

Table 5.2b: Adult Participation in Various Recreational Activities in the Past 12 Months: Weighted Population Estimates (in millions)

23 a)	Attend movies	104
b)	Attend sports events	80
c)	Visit zoo	53
d)	Play games	107
e)	Visit amusement park	81
f)	Exercise	84
g)	Play sports	65
h)	Outdoor activities	60
i)	Read books, magazines	138
j)	Volunteer work	46
k)	Collecting	25
l)	Prepare gourmet meals	47
m)	Repair home, car	98
n)	Gardening	99
24.	Visit non-art museum	38
25.	Visit historic sites	61
26.	Read poetry	33
27.	Visit arts/crafts fair	65
28.	Take art classes	18
29.	Craft activities: pottery, ceramics, jewelry, etc.	20
30.	Needle crafts	53
31.	Backstage theatre help: play, musical, opera, ballet	5
32.	Backstage music concert help	2
33.	Creative writing	11
34.	Artistic photography, video	17
35.	Painting, drawing, sculpture, printmaking	16

3) BACKGROUND DIFFERENCES IN RECREATIONAL ACTIVITIES

People with different demographic characteristics tend to engage in different recreational and leisure time activities. Tables 5.3a and 5.3b present the rates of participation in each recreational activity for different sub-groups. These rates are presented in terms of their difference from the average or grand mean for the whole sample.

Thus, over 64% of the population went to a movie in the last year. But for those in households earning under $5,000, only 39% (64%-25%) had gone to a movie, a rate considerably below the average for that activity. In contrast, in households earning $50,000 or more, 85% (64% + 21%) had gone to a movie, considerably above the average.

Tables 5.4a and 5.4b present the same data after adjustment for the impact of the other demographic factors listed in the table. In this case, a comparison of income categories shows an estimated 54% (64% - 10%) of those in households earning under $5,000, and 76% (64% + 12%) in the $50,000 and over group attending a movie -- if the impact of other associated variables is statistically adjusted. Thus, at least part of the difference between the low and high income groups can be attributed to factors other than income (e.g., education).

A brief description of the influence of various demographic factors on each recreational activity, both before and after adjustment for other background variables is given below. Unless otherwise indicated, the trends after adjustment remain largely unchanged.

Table 5.3a: Participation Rates for General Recreational Activities by Background Factors: Percentages Above or Below the Grand Mean

	Movie	Sports Event	Zoo	Games	Amusement Park	Exercise	Play Sports	Outdoor Activities	Books, Magazines	Volunteer Work	Collecting	Gourmet Meals	Repairs	Gardening
Grand Mean:	63%	48%	32%	65%	49%	51%	39%	36%	84%	28%	15%	29%	60%	60%
Income:														
Under $5,000	-25.7	-22.1	-17.8	-20.5	-18.9	-13.4	-14.4	-16.1	-19.7	-6.6	-3.0	-9.1	-24.8	-12.4
$5,000 - $9,999	-19.1	-18.8	-12.9	-13.9	-16.7	-14.6	-15.7	-11.4	-11.5	-9.0	-7.3	-4.3	-16.1	-6.4
$10,000 - $19,999	-1.9	-4.4	-3.8	-2.7	1.5	-3.1	-6.0	-4.9	-1.6	-3.9	2.8	-3.3	-2.2	1.2
$20,000 - $24,999	4.6	3.3	3.3	4.1	7.6	2.7	2.2	5.8	2.5	1.0	2.3	1.9	7.0	3.9
$25,000 - $49,999	15.5	16.3	13.9	12.5	9.8	14.9	13.3	11.3	10.5	8.5	3.0	4.5	15.7	5.4
$50,000 and over	21.2	33.8	16.6	17.1	4.5	15.6	26.4	6.2	13.7	15.4	1.3	17.9	10.2	9.3
Not ascertained	-2.0	-7.1	-8.5	-5.5	-1.4	-6.2	-4.5	-3.4	-0.1	-4.2	-4.0	2.2	-7.6	-5.5
SMSA:														
Cent city of SMSA	1.5	-1.6	4.6	-1.8	-2.8	1.0	1.6	-6.0	-0.4	-1.1	-0.1	2.0	-4.5	-5.6
SMSA, not cent city	8.0	5.7	4.3	5.7	2.8	5.6	6.3	3.6	4.3	1.0	0.2	2.9	5.3	4.0
Not in SMSA	-10.2	-5.3	-8.2	-5.2	-2.0	-6.4	-8.3	0.4	-5.0	-0.3	-0.2	-4.9	-3.6	-1.0
Age:														
18-24	24.5	16.8	2.5	22.5	18.4	18.8	26.6	15.4	5.9	-5.0	6.9	2.7	7.5	-13.0
25-34	18.6	12.3	15.2	16.0	16.4	13.0	15.4	11.9	7.5	0.4	5.1	2.2	11.7	4.5
35-44	5.2	8.9	6.5	5.6	7.3	2.7	4.2	0.4	2.1	6.2	-3.8	4.5	8.1	8.5
45-54	-5.1	-0.1	-5.0	-7.0	-7.4	-8.4	-8.0	-6.1	-1.0	3.1	-3.1	1.2	3.2	1.6
55-64	-21.8	-16.1	-9.9	-23.4	-17.4	-14.7	-20.7	-13.1	-5.6	1.4	-3.5	-4.0	-7.0	1.5
65-74	-34.4	-26.1	-18.8	-24.0	-29.9	-18.4	-32.6	-24.9	-10.5	-2.8	-5.1	-3.6	-21.9	3.6
75-96	-46.1	-42.9	-27.8	-36.8	-40.4	-31.5	-38.9	-33.7	-20.6	-12.8	-9.1	-16.4	-43.4	-5.5
Marital Status:														
Married	-2.0	0.3	2.1	-1.6	1.7	-2.2	-2.8	2.6	0.5	3.9	-0.4	0.3	6.1	5.9
Widowed	-33.2	-31.0	-20.8	-28.2	-30.8	-25.5	-33.9	-28.2	-11.0	-5.1	-6.1	-7.5	-34.5	-0.3
Divorced	4.3	-1.1	5.8	-1.1	2.8	4.6	-4.7	-5.9	0.9	-6.4	-3.1	11.1	-8.1	9.9
Separated	-2.5	-7.3	-6.4	-7.8	-4.9	-3.5	-2.2	-9.3	-8.4	-11.4	-7.8	-9.9	-18.5	-19.4
Never Married	19.7	13.6	0.2	14.3	9.4	16.4	20.5	9.7	4.6	-4.0	6.7	-1.6	-1.5	-17.9
Ethnic/Racial:														
White, Other Origin	2.5	2.5	2.3	5.9	3.7	3.4	4.8	7.4	2.2	1.3	2.7	0.0	3.4	4.3
White, British Isles	3.0	3.8	1.1	-0.3	-5.9	2.4	-0.9	2.7	4.3	3.1	1.2	-3.3	1.7	-2.1
White, W. Europe	1.8	6.9	-0.2	3.2	4.6	0.1	2.5	0.3	4.7	3.3	0.1	5.0	7.6	5.8
White, E. Europe	2.3	-9.5	1.9	-5.7	-5.9	-1.6	-2.5	-9.5	1.2	-3.7	5.5	15.4	4.0	3.7
Hispanic	4.8	-6.9	-0.3	-15.0	4.4	-12.9	-8.3	-15.7	-12.6	-6.4	-0.2	-2.4	-9.2	-20.0
Black (ex. Hispanic)	-18.7	-14.0	-12.4	-16.6	-14.7	-9.0	-11.0	-26.3	-13.9	-9.6	-9.4	-8.5	-17.0	-14.3
Other Races	4.0	-15.9	6.7	-7.0	-2.5	-8.7	-9.9	-13.3	-4.2	-4.8	-1.0	15.9	-19.1	-2.0
White (unknown origin)	-12.8	-1.1	-8.4	-8.0	0.2	-9.5	-10.0	1.1	-1.5	-2.2	-7.4	-11.7	-10.8	-12.9
Sex:														
Male	3.6	7.7	-1.7	2.4	1.6	2.9	9.2	7.7	-2.9	-2.6	0.1	-8.3	14.3	-11.7
Female	-2.2	-6.8	1.6	-2.1	-1.5	-2.6	-8.0	-6.8	2.7	.4	-0.1	7.2	-12.5	9.3
Education:														
Grade school	-40.2	-34.9	-22.2	-38.3	-28.8	-31.9	-33.3	-25.7	-32.1	-14.1	-11.7	-16.7	-28.6	-15.3
Some high school	-22.4	-21.9	-17.6	-14.4	-14.9	-15.1	-20.2	-14.2	-15.9	-12.7	-9.5	-14.8	-22.7	-9.5
High school graduate	2.8	0.5	-3.7	5.9	5.6	-1.7	-1.8	2.6	3.9	-2.3	0.5	2.4	2.5	1.8
Some college	15.1	15.3	11.8	12.8	9.9	13.8	17.6	11.2	10.0	5.5	4.5	2.6	10.5	4.5
College graduate	20.0	25.7	19.8	14.4	11.9	22.2	23.9	8.7	13.5	14.6	7.5	12.3	13.4	8.7
Graduate school	24.4	17.5	26.1	13.8	9.0	24.4	20.1	12.2	14.4	25.6	5.9	12.3	17.5	10.8
Work Hours:														
None	-14.7	-13.9	-6.5	-8.5	-9.9	-7.1	-13.9	-9.4	-5.8	-1.2	-2.6	-1.7	-14.1	2.0
1 to 29	10.1	6.3	2.1	8.2	7.8	9.7	8.5	7.4	4.6	6.0	3.8	3.2	5.0	5.2
30 to 39	11.3	6.9	1.9	3.1	8.3	7.0	7.7	2.7	6.6	-5.8	-2.7	4.1	7.1	2.2
40 hrs.	8.3	7.3	4.5	4.0	6.1	2.0	7.9	5.3	2.1	-2.1	1.9	-1.1	9.9	-2.1
41 to 49	10.3	9.5	6.3	9.4	5.8	4.7	13.3	7.5	4.1	3.7	1.0	-6.5	12.0	-7.6
50 or more	12.7	18.5	8.8	9.5	6.0	8.5	16.8	13.0	5.5	6.3	2.6	1.4	18.2	-7.5
Occupation:														
Professional	21.4	19.9	21.5	15.5	13.9	23.7	21.6	11.3	13.8	18.9	4.4	6.7	19.9	7.2
Managerial	14.2	16.5	8.3	7.8	3.4	7.2	15.2	10.8	9.5	7.7	1.9	8.0	15.3	2.7
Sales, Clerical	16.0	15.7	8.2	11.3	11.3	12.3	13.7	7.5	9.4	0.1	5.1	7.2	6.9	8.3
Craftsmen	3.1	4.9	-2.1	3.4	-1.5	-7.6	7.8	16.7	-1.1	-5.7	2.3	-9.8	24.7	-12.3
Operatives	-2.0	-4.1	-7.6	-4.1	0.4	-13.6	-6.1	-0.4	-9.9	-12.9	-6.4	-7.4	1.0	-13.7
Laborers	-4.0	2.5	-12.1	-0.0	6.9	-5.6	3.4	3.4	-10.0	-7.7	-3.9	-18.7	13.5	-19.7
Service Workers	6.7	0.1	-3.4	-0.2	5.8	2.5	5.0	2.4	0.6	-1.9	-2.7	1.9	-1.6	-3.8
Not Working	-4.5	-5.2	-3.5	2.1	-1.9	0.0	1.1	-1.4	-5.1	-3.9	2.2	-4.5	-5.8	-8.7
Keeping House	-20.7	-20.1	-7.0	-13.6	-12.0	-14.8	-23.5	-16.1	-5.8	0.2	-4.5	4.3	-23.4	9.4
Student	20.3	33.7	8.7	20.9	16.2	30.0	30.6	18.0	13.7	-2.1	12.7	-4.5	4.0	-15.8
Retired	-32.9	-21.8	-16.0	-25.0	-26.2	-13.5	-26.7	-18.3	-15.9	-7.5	-6.7	-13.3	-15.0	-3.1
Presence of Children:														
No Children	-3.3	-2.3	-5.3	-4.2	-7.9	-1.3	-2.1	-3.9	-1.2	-2.5	-1.0	-0.2	-4.6	-2.5
One 6-11	6.4	12.8	5.1	11.2	17.7	2.4	1.2	3.6	7.7	9.2	2.3	1.0	8.0	4.2
Two+ 6-11	9.4	9.7	13.5	9.1	10.6	2.0	2.0	10.5	2.9	3.5	6.4	7.6	15.3	8.4
One under 6	8.4	2.6	16.6	7.5	13.2	5.0	6.5	5.2	3.1	-3.8	2.5	-5.8	3.8	1.2
One 6-11, One under 6	11.9	4.1	12.2	12.9	24.5	-1.7	7.4	7.2	2.8	10.2	6.8	7.5	13.2	9.2
One under 6, Two+ 6-11	2.7	4.4	12.0	6.3	8.7	-6.0	9.4	16.7	-5.3	11.5	2.2	2.3	7.0	4.8
Two+ under 6	10.2	4.4	25.0	16.8	29.9	9.3	9.2	12.3	4.8	-2.4	-0.5	3.7	14.2	12.7
One 6-11, Two+ under 6	17.5	10.2	18.0	17.2	25.0	6.2	11.2	19.7	2.0	13.0	4.9	-8.9	8.2	5.3
Two+ 6-11, Two+ under 6	-4.4	-12.7	4.0	4.1	6.6	1.0	-6.2	-5.8	-5.5	4.9	-5.7	-9.3	13.5	24.7

BEST COPY AVAILABLE

BEST COPY AVAILABLE

Table 5.3b: Participation Rates for Cultural Activities by Background Factors: Percentage of Respondents Above or Below the Average for the Total Sample.

	Non-Art Museums	Historic Sites	Poetry	Arts/Crafts Fair	Art Classes	Craft Activities	Needle Crafts	Backstage Theatre Help	Backstage Music Help	Creative Writing	Photography Videos	Painting, etc.
Grand Mean:	23%	37%	20%	39%	11%	12%	32%	3%	1%	7%	11%	10%
Income:												
Under $5,000	-11.5	-21.6	2.5	-21.0	5.0	0.4	-3.7	1.3	2.1	1.3	-4.6	-1.9
$5,000 - $9,999	-10.2	-12.6	-6.5	-11.3	-4.2	-4.4	-2.0	-1.1	-1.7	-3.6	-7.5	-4.4
$10,000 - $14,999	-3.4	-5.3	-2.1	-3.9	-2.5	-0.3	1.9	-1.6	-1.8	-0.5	1.9	1.4
$15,000 - $24,999	2.2	1.0	-0.5	4.7	-1.4	1.4	1.8	0.1	0.1	-1.5	0.1	0.2
$25,000 - $49,999	7.7	13.1	4.8	12.6	4.5	2.5	1.8	1.7	0.1	1.8	5.9	2.5
$50,000 and over	14.4	18.9	6.7	8.8	4.6	0.3	2.9	0.5	0.3	2.6	1.2	-3.8
Not ascertained	5.2	1.7	-2.6	-2.2	-4.9	-2.7	-1.2	-1.2	-0.5	2.5	-3.5	2.7
SMSA:												
City of SMSA	0.4	-0.0	1.8	-1.2	0.5	-2.8	-2.8	0.3	0.2	2.9	0.3	1.8
SMSA, not cent city	3.4	4.0	0.2	3.6	1.5	1.2	2.6	-0.1	-0.3	0.1	1.4	0.1
Not in SMSA	-4.4	-5.6	-1.9	-2.0	-1.0	0.1	-0.4	-0.1	0.2	-2.6	-2.9	-1.8
Age:												
18-24	1.6	-3.7	7.5	-4.4	13.9	5.1	-2.8	2.2	2.6	6.7	3.6	5.4
25-34	10.8	9.7	1.5	9.4	3.7	3.2	4.2	0.5	-0.1	1.4	6.9	5.4
35-44	2.1	8.7	4.7	7.0	-2.2	0.0	0.2	1.9	-0.3	-0.1	2.7	-1.4
45-54	-2.4	2.6	-2.5	1.9	-4.7	-0.1	-3.7	-1.9	-0.3	-2.8	-3.1	-3.2
55-64	-6.5	-6.4	-6.1	-1.6	-6.3	-5.2	-2.5	-2.6	-0.5	-5.7	-4.2	-6.7
65-74	-8.6	-9.6	-5.2	-12.5	-6.3	-4.1	3.9	-2.9	-1.5	-3.1	-7.9	-4.2
75-96	-17.0	-24.4	-7.9	-26.8	-10.3	-10.9	-5.1	-3.8	-1.0	-4.2	-9.0	-7.4
Marital Status:												
Married	0.2	3.1	-2.4	3.0	-3.9	-0.2	0.0	-0.5	-0.3	-2.1	-0.2	-1.2
Widowed	-10.1	-18.1	-2.4	-12.8	-7.0	-7.7	12.5	-2.3	-1.0	-5.6	-7.3	-6.3
Divorced	4.0	-1.5	4.6	2.8	-2.0	1.3	4.9	1.1	1.5	3.7	-4.5	2.8
Separated	-3.4	-4.9	1.6	-13.8	-3.3	-5.5	6.7	0.3	-1.0	3.9	3.5	-2.9
Never Married	3.7	-3.6	7.3	-4.2	13.2	3.2	-7.6	2.0	1.4	7.4	4.2	6.7
Ethnic-Race:												
White, Other Origin	2.0	2.4	0.4	3.3	1.8	1.8	3.7	0.1	0.0	1.5	0.4	1.6
White, British Isles	-0.4	5.8	6.2	4.5	0.5	1.9	-0.0	1.6	-0.3	2.5	1.4	-1.0
White, W. Europe	-0.3	3.9	-1.5	7.1	-1.8	4.0	-1.9	0.5	-0.1	-2.8	1.7	1.2
White, E. Europe	5.6	8.3	-1.6	-0.2	1.9	-7.1	1.8	0.2	1.6	-1.1	1.9	0.0
Hispanic	-0.3	-10.9	-2.2	-12.8	1.6	-3.0	-9.5	0.4	0.0	1.9	-2.1	-1.6
Black (ex. Hispanic)	-10.2	-16.8	-4.4	-22.3	-3.7	-5.4	-9.7	-1.3	0.1	-1.7	-2.5	-3.8
Other Races	5.4	0.0	2.3	-5.6	-1.6	-6.2	1.2	-2.9	-0.0	-1.3	-4.5	3.9
White (unknown origin)	-6.2	-17.4	-7.6	-8.7	-6.6	-1.7	-1.3	6.1	0.5	-5.1	-5.6	-7.9
Sex:												
Male	0.2	0.5	-3.5	-6.2	-2.3	-2.6	-27.9	-1.6	0.0	-2.7	2.2	-1.2
Female	-0.2	-0.4	3.0	5.4	2.0	1.4	23.5	1.5	-0.0	2.5	-2.9	1.0
Education:												
Grade school	-19.0	-25.1	-14.9	-27.1	-9.6	-10.2	-12.9	-3.8	-1.0	-6.5	-9.7	-8.7
Some high school	-14.9	-22.7	-14.7	-22.1	-7.4	-6.8	-4.7	-2.7	-1.9	-5.6	-7.8	-6.8
High school graduate	-3.7	-5.6	-3.3	-1.2	-3.8	1.3	4.9	-1.9	-0.2	-2.9	-3.7	-1.7
Some college	6.9	9.2	6.4	9.5	10.3	3.4	3.1	2.1	1.8	4.6	3.8	4.6
College graduate	14.1	24.5	12.4	20.2	7.8	3.5	0.2	2.5	0.3	5.3	11.2	6.9
Graduate school	30.6	35.6	23.4	26.3	2.1	4.6	-5.8	3.7	1.2	8.9	14.3	6.9
Work Hours:												
None	-5.0	-7.5	-2.8	-6.5	0.5	-1.5	7.2	-1.5	0.1	-1.6	-3.2	-1.2
1 to 29	2.6	8.7	11.6	9.0	8.5	4.1	10.9	3.6	1.5	4.8	5.8	5.6
30 to 39	4.5	3.5	2.1	1.1	3.5	1.4	2.3	-0.5	0.2	1.0	-1.9	1.9
40 hrs	2.6	1.7	-3.8	0.4	-4.5	1.1	-6.5	-1.6	-1.7	-1.2	-0.1	-1.4
41 to 49	2.1	4.3	-1.3	4.0	-2.1	1.9	-11.0	1.1	1.7	-1.3	3.2	6.6
50 or more	9.5	11.9	2.6	8.8	-3.3	-2.5	-19.8	0.4	0.2	1.1	6.2	-0.2
Occupation:												
Professional	20.9	25.4	15.7	19.0	3.1	7.6	-3.7	4.9	1.4	6.4	12.8	6.2
Managerial	7.2	19.0	6.8	6.7	1.6	-1.6	-14.1	-1.9	-1.0	1.2	8.9	0.1
Sales, Clerical	4.7	4.4	3.4	13.9	2.4	3.8	9.9	1.6	-0.0	1.3	-0.2	2.9
Craftsman	4.7	-3.3	-8.4	-5.4	-7.9	-1.6	-21.9	-1.3	-0.4	-3.0	0.3	-1.7
Operatives	-10.1	-13.3	-10.4	-13.4	-5.7	-2.3	-13.9	-2.7	-1.7	-4.0	-3.4	-3.1
Laborers	-6.3	-10.4	-7.3	-13.4	-5.4	-4.5	-22.7	-1.8	0.3	-3.1	-4.7	-2.1
Service Workers	-4.9	-0.1	0.3	-1.7	4.6	0.2	5.4	0.1	-0.5	0.4	-0.0	-0.0
Not Working	-5.8	-6.1	1.8	-10.8	2.2	1.2	1.6	-0.1	1.6	4.7	-3.9	5.1
Keeping House	-6.0	-10.0	-5.7	-4.0	-3.1	-3.1	22.9	-2.5	-1.7	-4.8	-5.0	-3.9
Student	15.2	7.8	28.9	8.8	41.2	10.5	-5.5	9.5	7.4	14.0	13.0	3.2
Retired	-10.0	-10.4	-10.8	-14.3	-8.4	-6.5	-20.3	-2.2	-1.0	-4.0	-7.9	-7.3
Presence of Children												
No Children	-1.3	-2.8	0.5	-2.8	1.7	-0.2	-1.3	0.1	0.2	0.4	-1.7	-0.4
One 6-11	6.4	9.5	3.8	2.9	-2.8	1.1	2.4	-1.8	-1.0	-4.7	0.2	-0.4
Two+ 6-11	4.5	-1.9	-6.0	-3.4	-5.3	-0.1	-1.3	-0.4	-0.3	0.2	1.7	-2.0
One under 6	2.7	2.3	-3.2	6.4	-2.1	1.6	3.3	1.9	-0.1	-1.1	4.0	3.6
One 6-11, One under 6	2.7	5.1	-4.6	7.4	3.9	1.4	5.4	-1.2	-1.0	-1.2	-3.6	-3.3
One under 6, Two+ 6-11	-9.2	1.3	2.4	12.2	5.0	-5.0	8.6	0.3	2.8	5.7	-5.8	-1.2
Two+ under 6	8.0	10.9	2.8	7.3	-5.0	1.0	3.6	-1.6	-1.6	-1.4	7.8	6.1
One 6-11, Two+ under 6	3.8	-6.1	-5.8	4.0	-5.5	1.9	13.8	3.6	1.7	5.1	5.1	3.3
Two+ 6-11, Two+ under 6	5.7	4.9	-4.0	-3.9	2.3	-1.2	-0.3	-3.8	-1.0	-0.2	-4.9	3.3

General Leisure Activities

Attending Movies

Age is strongly related to movie attendance as young respondents are much more likely to attend than are older groups. Those with higher income and educational levels are also more likely to attend, but about half the variation in both cases can be attributable to other factors. Males are more likely than females to go to the movies, but most of this difference disappears when other factors are controlled (Table 5.4a).

Attending Sports Events

Younger respondents are also much more likely to attend sports events. People with higher levels of income or education attend at higher than average rates, but this relationship is weakened considerably when other factors are controlled. Non-whites are notably below average in attending sports events. On the other hand, males are likely to attend sports events whether or not other factors are held equal.

Visiting Zoos, Arboretums, or Botanical Gardens

Older people and those in lower income brackets are generally less likely to visit zoos, arboretums, or botanical gardens. (Much of the variation, however, is due to the impact of other factors such as education.) Non-whites visit less often than the average, with blacks being much less likely than the average to visit these places. Males are slightly less likely than females to visit. Those with higher educational levels are considerably more likely to visit, even after adjustment for other factors.

Playing Games

Playing games such as cards or pinball is strongly related to age -- as younger people are much more likely to participate. Those with higher levels of education or income are also more likely to participate, but much of the variation is due to other factors. Males are more likely to play these games than females, while Hispanics, blacks, and other non-whites play these games less often than the average.

Visiting Amusement Parks or Carnivals

Visits to an amusement or theme park, a carnival, or similar places are more common among younger age groups. These visits also tend to be more likely among those with higher levels of income or education--except for the highest levels ($50,000 or more income and graduate education). Much of the variation for education and income is attributable to the influence of other factors. Males are slightly more likely than females to go to such places of amusement, but this reverses after adjustments are made for other factors; presumably differential income and education account for these original differences. After adjustment for the impact of other factors, blacks and members of "other" racial groups are least likely to visit such places of entertainment.

Exercising

People with higher levels of income and education are more likely to exercise as are younger people. On the other hand, Hispanics and non-whites are the least likely to exercise. Males are more likely to exercise than females, but this difference is attributable to other background factors, such as income and education.

Playing Sports

Involvement in sports tends to be an activity of the young. In addition, those with higher educational levels and, to a lesser extent, those with higher income levels are more likely to be active in sports. Hispanics and non-whites are least likely to participate. Females are also less likely than males to participate in sports activities and this tendency persists after adjustment for other factors.

Outdoor Activities

The young also are much more likely to engage in outdoor activities such as camping, hiking, or boating. The likelihood of participation in outdoor activities rises with income except for the highest income bracket (perhaps reflecting the older average age in this category), but these differences by income are mostly attributable to other factors. Hispanics and non-whites are notably less likely than the average to participate in outdoor activities. Females are less likely than average to participate. Those with higher levels of education are more likely to engage in outdoor activities, but much of this variation is due to other factors.

Reading Books or Magazines

Reading books and magazines is strongly related to higher levels of education. This type of reading is more common among those who are younger or earning higher incomes, but these differences decrease when other variables are taken into account. Females are somewhat more likely to read above the average. Blacks and Hispanics are less likely than average to read books and magazines. Education is probably the major variable explaining differences in reading rates.

Volunteer Work

Higher levels of education are associated with participation in volunteer or charity work. Volunteer work also rises with income but this is largely due to other associated factors such as education. In the unadjusted data, the likelihood of doing volunteer work increases with age until 35-44 and then decreases. (However, in the adjusted figures, the likelihood increases through the 65-74 group.) Blacks and Hispanics are least likely to do volunteer work. Males are somewhat less likely to participate in volunteer activities than are females and this trend persists after adjustment for other factors.

Collecting

Collectors tend to be better educated and somewhat younger than average after control for other factors.

Preparing Gourmet Meals

Those earning $50,000 and more, those with college degrees, and those of "other" races are markedly more likely than average to prepare gourmet meals. Cn the other hand, males and those over the age of 75 are noticeably less likely than the average to engage in gourmet cooking.

Repairing Home or Vehicle

In general, those who are younger or better educated are more likely to do home or vehicle repairs. Males and those in higher income brackets

Table 5.4a: MCA-Adjusted Participation Rates for General Recreational Activities by Background Factors: Percentages Above or Below the Grand Mean

	Movie	Sports Event	Zoo	Amusement		Exercise	Play Sports	Outdoor Activities	Books, Magazines	Volunteer Work	Collecting	Gourmet Meals	Repairs	Garden
				Games	Park									
Grand Mean:	64%	49%	32%	66%	50%	52%	40%	37%	84%	28%	15%	29%	61%	59%
Income:														
Under $5,000	-10.1	-8.9	-6.7	-8.8	-7.3	-5.7	-0.7	-0.8	-9.4	1.8	-0.4	-4.3	-3.8	-5.1
$5,000 - $9,999	-8.4	-8.7	-4.6	-5.0	-8.3	-7.5	-4.5	-2.1	-4.2	-4.4	-4.7	0.2	-5.1	-2.3
$10,000 - $14,999	-0.2	-2.8	-2.0	-0.8	-0.1	-1.2	-4.4	-3.4	1.4	-0.4	2.4	-1.9	-0.7	3.3
$15,000 - $24,999	0.9	0.8	1.8	1.3	3.7	0.7	-0.5	1.5	1.1	0.7	1.5	0.0	2.4	1.8
$25,000 - $49,999	6.6	8.1	6.4	4.9	3.8	7.9	4.3	3.6	3.6	2.3	1.1	1.9	4.2	1.6
$50,000 and over	11.7	23.3	7.0	10.7	1.1	6.2	16.9	-0.9	4.5	5.7	-0.8	8.8	2.8	1.0
Not ascertained	-0.6	-6.2	-6.5	-3.0	0.5	-5.3	-1.8	-2.8	-0.6	-4.8	-3.9	-0.2	-6.0	-7.0
Age:														
18-24	25.3	16.7	5.0	22.5	20.2	16.4	25.1	17.3	3.7	-2.5	4.6	4.5	12.1	-7.5
25-34	14.7	10.6	7.8	13.1	10.6	11.3	14.1	9.8	2.5	-4.7	2.8	1.1	6.5	-0.1
35-44	-0.4	2.4	1.0	-0.4	1.9	-1.5	0.7	5.4	-2.9	1.2	-5.0	1.7	1.1	3.9
45-54	-7.2	-2.6	-4.0	-7.6	-6.5	-8.3	-9.7	-6.5	-1.4	3.4	-1.9	-1.3	0.5	0.9
55-64	-19.1	-14.8	-3.9	-21.8	-13.8	-11.9	-18.6	-13.4	-1.8	4.7	-0.4	-4.2	-7.0	1.3
65-74	-25.5	-18.4	-9.2	-17.3	-20.6	-13.5	-25.3	-21.1	0.3	5.2	-1.2	0.2	-13.3	4.5
75-96	-34.7	-31.9	-17.1	-26.0	-30.4	-24.0	-29.9	-27.8	-6.6	-4.0	-3.8	-10.6	-29.7	-0.4
Ethnic-Race:														
White, Other Origin	0.9	0.9	1.8	3.4	1.5	2.2	2.8	+6.3	0.9	0.6	1.3	-0.8	2.3	3.5
White, British Isles	4.8	2.6	0.4	1.6	-2.1	2.1	0.8	4.6	2.5	0.7	1.0	-5.3	1.4	-5.8
White, W. Europe	0.8	5.6	-0.5	3.6	4.1	0.3	1.6	0.3	2.7	2.2	0.5	4.9	3.9	3.9
White, E. Europe	6.9	-5.0	1.8	0.3	1.5	1.6	2.1	-4.4	0.5	-4.7	6.2	14.9	6.0	0.1
Hispanic	6.4	-1.5	1.9	-12.6	4.3	-7.4	-6.4	-13.8	-4.4	-0.1	0.4	1.0	-8.5	-13.1
Black (ex. Hispanic)	-13.4	-8.2	-9.4	-12.6	-12.1	-5.7	-8.5	-23.9	-7.3	-4.4	-8.4	-3.3	-10.1	-7.3
Other Races	-6.6	-23.0	-3.1	-13.8	-9.2	-15.4	-18.3	-17.7	-7.6	-6.8	-2.5	12.3	-24.2	-6.7
White (unknown origin)	-7.6	3.6	-1.5	-5.2	1.5	-3.5	-5.5	1.3	3.4	2.0	-5.9	-4.7	-4.7	-7.9
Sex:														
Male	.2	4.1	-2.1	1.6	-0.3	0.9	7.5	4.1	-2.2	-2.3	-0.7	-9.0	11.3	-9.5
Female	-.2	-3.5	1.8	-1.4	0.2	-0.8	-6.6	-3.6	1.9	2.0	0.6	7.9	-9.9	8.2
Education:														
Grade school	-17.1	-14.8	-9.6	-18.1	-8.0	-14.6	-11.8	-6.3	-25.6	-14.1	-6.0	-10.4	-12.1	-12.5
Some high school	-13.7	-12.4	-11.9	-7.4	-8.1	-12.3	-11.4	-8.0	-12.1	-11.8	-6.7	-13.3	-12.4	-9.8
High school graduate	0.8	-0.8	-3.1	3.2	2.2	-1.2	-1.7	0.9	3.3	-1.9	-0.3	1.1	1.5	0.2
Some college	6.7	8.4	7.4	5.0	2.7	6.2	8.0	5.2	7.8	5.7	1.6	0.9	5.5	5.2
College graduate	10.3	15.3	11.5	5.9	4.7	14.1	12.8	0.9	10.4	12.7	5.5	11.1	5.7	7.1
Graduate school	16.8	8.3	18.0	5.4	3.4	16.8	10.2	5.1	11.9	21.7	9.9	14.3	8.1	10.0
SMSA:														
Cent city of SMSA	0.8	0.4	4.4	1.1	-0.7	1.2	1.2	-2.4	0.7	-0.1	0.8	1.9	-1.0	-2.4
SMSA, not cent city	2.9	0.0	1.0	0.8	-0.5	0.7	2.3	0.6	1.0	-1.1	-1.4	-0.7	1.9	1.9
Not in SMSA	-4.2	-0.4	-4.8	-1.9	1.1	-1.9	-3.9	1.3	-1.9	1.4	1.1	-0.8	-1.4	-0.3
Marital Status:														
Married	-1.2	0.2	0.3	0.1	-0.1	-1.1	0.2	1.7	0.0	1.7	-0.6	0.7	4.6	3.6
Widowed	5.8	4.6	1.4	2.2	1.8	-0.6	2.9	-0.4	3.6	0.8	0.3	-4.3	-0.4	-2.0
Divorced	5.5	0.1	5.0	1.3	5.2	5.3	-2.2	-4.8	0.8	-7.9	-2.2	8.2	-4.5	5.3
Separated	5.5	1.1	0.2	0.5	1.8	4.4	4.6	-0.9	-1.9	-6.3	-0.7	-8.0	-4.6	-14.7
Never Married	-0.9	-2.6	-3.2	-1.8	-2.1	1.6	-1.6	-3.7	-1.4	-2.4	2.5	-2.4	-13.0	-11.1
Work Hours:														
None	1.3	-4.1	3.0	0.0	1.4	0.8	0.9	3.1	0.8	2.4	1.2	4.7	2.9	4.7
1 to 29	-0.6	1.2	-2.4	1.9	-0.8	2.2	-1.1	-0.5	-0.3	3.5	0.4	-2.4	-0.7	3.0
30 to 39	1.6	3.5	-3.7	-1.5	1.2	2.9	0.0	-4.7	2.2	-6.3	-3.4	-0.8	-0.1	-0.2
40 hrs.	-1.5	1.9	-2.3	-1.1	-0.5	-2.2	-1.6	-2.7	-1.4	-3.7	-0.3	-4.3	-2.6	-3.7
41 to 49	-2.4	1.5	-0.9	1.9	-3.1	-2.9	1.3	-4.3	-0.4	0.7	-1.6	-10.9	-2.4	-9.7
50 or more	-1.2	7.5	-1.2	1.0	-2.8	-0.7	0.5	-0.1	-1.0	0.3	-1.1	-0.4	-3.6	-8.7
Occupation:														
Professional	3.8	-0.6	6.5	3.8	4.3	6.1	4.6	3.7	2.7	7.0	-0.4	-0.3	6.6	3.7
Managerial	3.3	-2.6	0.6	-3.1	-1.2	-2.8	1.2	1.8	2.7	1.5	0.1	9.3	3.2	5.9
Sales, Clerical	4.7	3.7	3.3	1.7	3.8	3.9	5.8	2.0	2.3	-0.7	3.5	3.5	4.4	4.7
Craftsmen	-1.6	-7.5	-2.4	-3.4	-6.6	-9.2	-2.4	7.9	-0.6	-1.2	2.6	2.3	8.6	-3.6
Operatives	-0.2	-6.3	-1.0	-4.6	-2.7	-9.3	-6.1	0.0	-3.8	-4.3	-4.0	2.1	-1.5	-2.8
Laborers	-2.9	-2.3	5.3	-2.0	4.4	-9.1	-2.7	-0.7	-4.4	-0.1	0.3	-5.1	10.7	-5.1
Service Workers	2.3	-3.4	-1.0	-3.5	1.6	-0.4	3.6	4.0	1.3	2.4	-1.6	2.0	1.8	-0.4
Not Working	-2.5	2.2	-0.9	3.4	-0.9	1.3	0.2	-2.7	-1.5	0.0	2.1	-4.2	-3.7	-3.5
Keeping House	-5.1	0.2	-3.8	0.7	-3.2	-1.3	-4.1	-6.8	-0.6	-1.3	-2.0	-2.3	-9.3	-2.2
Student	4.8	21.7	0.6	2.2	2.8	10.2	2.9	1.7	7.3	-3.6	3.7	-11.5	-2.9	-5.0
Retired	0.9	8.8	2.3	1.5	2.2	9.1	2.7	-1.9	-2.2	-3.2	-0.9	-5.0	-5.3	0.5
Presence of Children:														
No Children	1.0	1.1	-3.1	-0.4	-3.5	1.2	1.7	0.5	-0.0	-1.5	-0.9	1.3	-0.4	-1.2
One 6-11	2.1	6.2	2.4	7.7	13.1	1.6	-2.2	-2.3	5.4	8.6	5.5	-2.5	1.0	0.1
Two+ 6-11	2.8	2.4	7.8	3.4	4.0	-1.3	-3.7	1.9	0.4	2.2	7.8	3.4	6.9	2.7
One under 6	-7.5	-9.9	8.7	-6.7	1.1	-5.8	-8.8	-5.7	-1.4	-2.6	0.8	-8.7	-6.1	-0.3
One 6-11, One under 6	-1.2	-4.1	5.5	0.9	14.2	-7.7	-3.0	-3.2	-1.6	10.7	5.0	3.2	5.2	4.3
One under 6, Two+ 6-11	-6.7	-2.5	6.8	-0.9	0.2	-9.2	2.2	8.6	-5.7	11.4	3.3	-1.3	1.6	3.9
Two+ under 6	-6.2	-8.9	16.4	0.0	16.2	-2.8	-7.3	-0.4	-1.1	-3.9	-4.9	-2.5	2.7	8.1
One 6-11, Two+ under 6	5.9	2.2	13.1	7.2	16.6	1.9	2.8	9.5	-0.6	14.4	4.1	-10.0	-1.8	2.6
Two+ 6-11, Two+ under 6	-8.8	-9.7	1.2	0.3	2.8	-0.6	-7.2	-3.9	-5.0	7.4	-4.1	-14.6	12.3	20.1

Table 5.4b: MCA-Adjusted Participation Rates for Cultural Activities by Background Factors: Percentage of Respondents Above or Below the Grand Mean

	Non-art Museum	Historic Sites	Poetry	Arts/crafts Fair	Art Classes	Pottery etc.	Needle Crafts	Backstage Theatre Help	Backstage Music Help	Creative Writing	Photography Video	Painting etc.
Grand Mean:	22%	38%	20%	40%	11%	12%	32%	3%	1%	7%	10%	10%
Income:												
Under $5,000	-4.8	-8.7	3.8	-8.2	2.3	4.5	-3.8	1.6	1.8	0.7	-1.[illegible]	0.8
$ 5,000 - $9,999	-4.9	-2.0	-2.1	-0.8	-2.0	-1.0	-1.2	-0.2	-0.5	-1.2	-3.0	-2.4
$10,000 - $14,999	-0.9	-2.1	0.4	-0.5	-0.9	0.2	-0.2	-0.3	-0.6	0.3	2.6	1.9
$15,000 - $24,999	1.0	0.0	0.2	2.0	-1.0	0.5	1.3	0.1	0.1	-0.2	-0.2	0.0
$25,000 - $49,999	1.5	5.1	0.7	4.2	2.8	-0.9	2.2	0.1	0.0	0.0	2.0	-0.1
$50,000 and over	9.1	3.0	-3.8	-5.1	1.2	-2.5	0.6	-0.9	-0.1	-1.5	-3.6	-5.2
Not ascertained	4.7	0.4	-1.9	-3.7	-3.5	-1.3	-3.5	-1.0	-0.4	1.8	-1.9	2.2
Age:												
18-24	1.8	0.5	3.4	-2.2	6.6	4.6	0.1	0.9	0.7	3.0	1.2	3.6
25-34	6.6	3.7	-2.3	5.2	3.4	3.2	4.3	0.2	-0.2	0.1	4.5	4.2
35-44	-1.6	1.9	2.5	4.2	-0.8	-0.3	0.7	1.2	-0.3	0.1	1.2	-1.4
45-54	-3.3	0.4	0.0	1.6	-2.2	-0.4	-3.1	-0.5	-0.1	-0.1	-2.6	-2.6
55-64	-3.8	-3.9	-3.2	0.6	-4.4	-5.7	-3.6	-1.0	-0.1	-3.0	-3.0	-4.9
65-74	-1.7	-1.1	0.2	-7.9	-4.7	-2.7	2.4	-1.0	0.2	-0.3	-4.2	-1.7
75-96	-8.3	-12.7	-1.2	-19.4	-9.2	-7.6	-8.3	-2.0	-0.2	-0.7	-5.6	-4.0
Ethnic-Race:												
White, Other Origin	1.4	1.7	-0.2	2.5	0.3	0.5	1.9	0.0	0.0	0.5	0.3	0.4
White, British Isles	-2.6	1.9	4.6	0.7	0.6	1.0	-0.6	0.4	-0.4	1.3	0.8	-1.1
White, W. Europe	-0.8	1.9	-1.0	6.5	0.1	4.0	1.2	-0.4	0.0	-1.2	0.5	1.9
White, E. Europe	4.9	6.6	-0.2	-0.2	3.2	-6.9	1.9	0.6	0.8	-0.4	1.4	0.9
Hispanic	4.4	-2.9	3.3	-5.9	1.3	-1.2	-6.3	0.9	0.3	1.0	-0.3	0.0
Black (ex. Hispanic)	-5.9	-10.1	-2.6	-16.5	-2.9	-4.6	-8.7	-1.3	0.0	-1.2	-1.0	-2.8
Other Races	-3.2	-9.3	-2.3	-11.8	-3.2	-7.6	-0.5	-2.9	-0.2	-3.7	-7.6	0.9
White (unknown origin)	-1.0	-10.7	-2.9	-2.0	-2.0	0.4	1.4	6.8	0.8	-3.0	-2.5	-5.5
Sex:												
Male	-2.2	-2.5	-4.9	-8.4	-2.7	-2.3	-27.0	-1.1	-0.1	-3.4	1.4	-1.9
Female	1.9	2.1	4.3	7.4	2.4	2.0	23.5	1.0	0.1	3.0	-1.2	1.7
Education:												
Grade school	-11.5	-16.8	-12.4	-18.0	-3.7	-6.6	-7.7	-1.9	-0.9	-3.1	-4.2	-4.4
Some high school	-9.8	-17.1	-13.5	-18.6	-5.5	-4.7	-6.5	-1.7	-0.8	-3.8	-4.2	-4.7
High school graduate	-2.9	-4.6	-2.7	-2.5	-2.7	1.3	1.7	-0.6	0.1	-1.9	-2.[illegible]	-1.0
Some college	3.8	7.5	4.2	7.4	6.7	1.8	3.0	1.3	0.4	2.2	0.9	2.4
College graduate	9.9	18.7	12.1	17.4	5.5	2.5	1.9	2.0	0.2	4.6	7.8	5.0
Graduate school	24.4	27.9	23.8	23.6	2.9	2.2	2.4	2.2	0.8	7.7	10.0	5.2
SMSA:												
Cent city of SMSA	1.0	1.7	0.3	1.7	0.1	-1.1	-0.8	0.4	0.2	1.5	0.4	1.1
SMSA, not cent city	0.7	-0.[illegible]	-1.3	-1.3	-0.4	0.4	0.3	-0.3	-0.3	-0.3	0.2	-0.7
Not in SMSA	-1.6	-1.3	1.2	0.2	0.3	0.4	-0.3	0.1	0.2	-0.8	-0.6	-0.1
Marital Status:												
Married	-0.5	1.8	-1.2	1.6	-1.0	0.9	1.7	-0.[illegible]	0.0	-1.3	-0.3	-0.4
Widowed	1.8	-1.6	3.3	3.6	-1.4	-1.5	1.6	-0.6	-0.6	-2.6	1.0	-1.9
Divorced	4.0	-0.6	2.1	-1.5	-2.3	-0.2	-4.5	0.5	0.5	1.7	-2.6	1.4
Separated	2.8	4.1	2.9	-4.7	-3.0	-4.1	1.7	0.7	-1.1	3.4	5.8	-0.9
Never Married	-0.7	-5.6	1.7	-5.4	5.1	-1.8	-4.6	0.3	0.2	4.1	0.9	1.7
Work Hours:												
None	-1.0	7.4	2.3	3.0	4.1	2.5	3.5	0.3	0.0	2.1	2.1	1.9
1 to 29	0.0	0.0	5.8	2.0	3.0	0.3	3.5	1.6	0.3	0.2	2.5	1.7
30 to 39	2.8	-4.7	-0.7	-4.8	-0.6	-1.2	-3.1	-1.2	0.2	-1.4	-2.8	-1.1
40 hrs.	-0.2	-7.5	-4.4	-4.8	-5.1	-1.4	-3.5	-0.9	-0.6	-2.6	-3.3	-3.2
41 to 49	-2.4	-6.5	-3.8	-1.7	-4.5	-1.9	-3.1	0.6	0.8	-2.8	-1.8	3.3
50 or more	3.4	-4.2	-2.5	1.7	-4.5	-4.6	-4.0	0.1	0.3	0.0	-0.3	-2.1
Occupation:												
Professional	4.6	9.4	4.9	3.1	1.3	6.4	1.2	2.5	1.1	3.9	5.6	3.5
Managerial	-0.2	12.3	5.7	-1.0	3.1	1.7	-0.2	-1.0	-0.9	2.6	4.6	1.1
Sales, Clerical	-0.7	3.2	1.2	6.4	0.9	0.9	-1.2	-0.2	-0.1	0.5	0.2	0.4
Craftsman	4.2	3.3	0.6	1.1	-1.2	2.2	3.7	0.0	-0.1	2.7	0.6	2.5
Operatives	-6.0	-1.3	-1.4	-2.9	1.1	0.7	1.1	-0.3	-0.3	0.6	-0.8	0.[illegible]
Laborers	-0.3	1.5	0.2	-2.4	-1.6	-1.3	-0.2	0.0	0.3	0.5	-2.4	0.9
Service Workers	-3.2	6.0	0.5	1.9	3.0	0.3	2.9	-0.1	-0.6	0.5	1.1	-0.3
Not Working	0.8	-4.9	1.3	-3.6	-1.7	-1.0	3.2	0.0	0.3	1.9	-3.6	3.7
Keeping House	-1.5	-11.7	-6.8	-6.2	-4.7	-4.9	-2.3	-1.7	-0.6	-6.1	-2.7	-3.3
Student	10.3	-1.9	16.0	6.6	23.8	2.0	-2.6	7.0	5.9	4.6	7.0	5.5
Retired	2.4	-4.6	-3.7	2.5	-3.1	-2.4	-3.3	0.0	-0.7	-0.9	-3.9	-3.3
Presence of Children:												
No Children	0.2	0.0	0.5	0.5	1.1	0.9	0.7	0.2	0.1	0.3	0.4	0.4
One 6-11	4.9	4.7	2.6	-3.8	-0.8	-0.1	-1.8	-1.3	-0.7	-3.3	-1.6	-0.5
Two+ 6-11	1.2	-6.0	-5.6	-9.6	-4.3	-1.6	-5.5	-0.8	0.0	1.[illegible]	-1.5	-2.7
One Under 6	-2.8	-2.6	-4.5	0.7	-5.1	-3.2	-2.3	0.2	-0.2	-2.2	0.7	-0.9
One 6-11, One under 6	-2.7	0.0	-3.7	0.3	1.8	-2.4	-1.1	-1.7	-0.9	-0.7	-6.[illegible]	-6.3
One Under 6, Two+ 6-11	-12.0	-0.3	4.5	9.8	5.2	-5.5	4.7	0.0	2.1	5.4	-6.3	-2.1
Two+ under 6	0.4	3.7	0.4	0.6	-7.6	-3.2	-2.5	-1.1	-0.7	-1.5	2.7	2.4
One 6-11, Two+ under 6	0.7	-10.0	2.4	-2.1	-6.4	-1.8	5.3	2.7	1.1	6.8	2.8	1.5
Two+ 6-11, Two+ under 6	0.8	3.3	1.0	-3.1	3.8	-0.7	-2.2	-1.6	-0.3	2.3	-4.5	3.3

are also more likely than average to make such repairs. However, much of the income and educational differences in making repairs are attributable to the effects of other factors. Hispanics and non-whites are the less likely to do such repairs than are whites.

Gardening

Those with higher levels of income and education are more likely to do indoor or outdoor gardening. Gardening activities are less common among those aged 18-24, blacks and Hispanics. Females are considerably more likely than males to garden.

Cultural Recreational Activity

Visiting Non-Art Museums

Those with higher educational and income levels are more likely to visit science and natural history museums. Those aged 25-34 are most likely to attend. Attendance generally decreases with age among those over 45 years of age.

Visiting Historic Sites

Those with higher incomes, those aged 25-44, those with higher educational levels, and whites have higher than average attendance rates at historic sites. Much of the variation by income and age groups seems attributable to other factors like education.

Reading Poetry

Listening to or reading poetry is more common among those with higher educational levels. It also tends to be more common among those with higher incomes, but other factors (particularly education) appear to considerably inflate the rates of those in higher income brackets and suppress the rates of those in lower income brackets. Younger people, and women are more likely than the average to listen to or read poetry.

Visiting Arts/Crafts Fairs

Attendance of arts or craft fairs is more common among those with higher incomes, with more education, those aged 25-44, among whites, and females. Other factors, however, account for much of the differences in attendance by income or age, with education once again probably being the major explanatory factor.

Taking Art Classes

Those with higher incomes are generally more likely to have taken lessons or classes in literature, creative writing, art, photography, craft arts, ballet, music, etc. However, those earning under $5,000, those aged 18-24, and those with some college education (all typical characteristics of current college students) are even more likely to have taken such classes in the last 12 months. In contrast, males, blacks, people without any college education, and adults older than age 35 are less likely than average to participate in these classes.

Craft Activities

The better educated, those under 35, and whites are more likely to have engaged in crafts such as pottery, ceramics, jewelry, leather, metal, or similar materials. Those earning $5,000-$9,999, males--and other factors being equal, those making over $25,000—are less likely than the average to engage in these crafts.

Needle Crafts

Females and whites in particular are more likely than average to engage in weaving, crocheting, quilting, needlepoint, sewing or similar crafts. Those with higher incomes are slightly more likely than the average to be involved in such crafts. These crafts are also somewhat more common among a younger group aged 25-44, and the older group aged 65-74, but less common among those without high school diplomas and those with post-graduate educaton. However after adjustments for the impact of other factors, all educational groups past high school are about equally likely to do needle crafts.

Backstage Theatre Help: Play, Musical, Opera, Ballet

Very young adults, those earning under $5,000, or those with higher levels of education are more likely to have done nonperforming "backstage" production work for a play, musical, opera, or ballet.

Backstage Music Concert Help

Very young adults, those earning under $5,000, and those with higher levels of education are also more likely to have done nonperforming production work for a jazz or classical music performance.

Creative Writing

Very young adults and those with at least some college education are more likely to do creative writing. To a lesser extent, females, the least or most affluent, and whites are also more likely than the average to pursue creative writing.

Artistic Photography, Video

Younger age groups (18-44), whites, males, those with higher levels of education, and those earning at least $10,000 are more likely than the average to engage in making photographs, movies, or videotapes. Only the education factor remains a strong influence after control for other factors.

Painting, Drawing, Sculpture, Printmaking

Younger people (aged 18-34), people with intermediate earning levels, and those with at least some college education are more likely than the average to engage in painting, drawing, sculpture, or printmaking activities.

In sum, respondents with certain background characteristics are noticeably more likely to engage in each of these recreational activities. The background characteristics of groups with higher rates are often the same for each activity: higher education, relatively younger age groups and the more affluent. Nevertheless, these characteristics are not always the best predictors or explanatory factors. Income in particular is often a more effective predictor than explanatory factor; education, which is closely associated with income, is usually the major explanatory variable after statistically controlling for the effect of other factors.

4) DIMENSIONS AND CLUSTERS OF LEISURE TIME ACTIVITIES

As already noted, one of the purposes of the study was to identify how recreational and leisure time activities clustered into particular patterns. The manner in which the more cultural of these activities formed into clusters was of particular interest. A factor analysis, therefore, was performed on all 26 of the items in Table 5.2a.

The result of this factor analysis was the identification of five separate dimensions of recreational activity. However, four of these dimensions were "weak", in the sense that the factor loadings that identified them were in the .3 to .5 or "low" range for such loadings, and only two to four activities were identified on each. The main result from this analysis was that all the activities were related positively to each other, and that one "general activity" factor was a more apt descriptor of the data than the five dimensions that emerged from the analysis.

Nonetheless, the structure of these five dimensions is shown in Table 5.5. The first dimension in Table 5.5 included going to the movies, attending sports events, playing games, visiting amusement parks, jogging (or other exercise programs), engaging in sports activities, camping, reading books, improving or repairing the home or vehicles, and (to a lesser extent) visiting a zoo or arboretum, or an arts/crafts fair. This cluster represents a life-style organized primarily around activities away from home, many involving physical activity.

A second dimension includes painting/drawing/sculpturing/printmaking, lessons in the arts, creative writing, and to a lesser extent pottery (and similar crafts), listening to poetry, and making artistic photographs/movies/videotapes. This dimension, then, clusters activity

Table 5.5: Dimensions of Recreational Activities: Varimax Rotated Factor Matrix

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Movie	*.587	.148	.064	.167	.015
Sports events	*.566	.092	.010	.136	.069
Zoo	.328	.139	.159	*.439	.023
Games	*.607	.104	.144	.095	.011
Amusement Park	*.510	.062	.137	.152	.063
Exercise	*.507	.204	.131	.083	.059
Play Sports	*.624	.161	-.073	.091	.050
Outdoor activities	*.446	.141	.055	.182	-.004
Volunteer work	.171	.137	.240	.226	.168
Books, magazines	*.425	.100	.296	.107	.017
Collecting	.160	.209	.159	.110	.052
Gourmet Meals	.149	.199	*.402	.133	-.003
Repairs	*.445	.086	.174	.104	-.008
Gardening	.123	-.001	*.581	.115	-.013
Non-art Museums	.197	.128	.088	*.562	.058
Historical sites	.308	.173	.217	*.570	.021
Poetry	.120	*.318	.233	.191	.179
Arts/crafts fair	.307	.188	*.358	*.357	.052
Art classes	.144	*.440	.077	.049	.154
Craft activities	.133	*.327	.184	.027	.048
Needle Crafts	-.004	.131	*.485	.035	.051
Backstage theatre help	.056	.132	.041	.056	*.667
Backstage music concert help	.008	.061	.013	.012	*.399
Creative Writing	.064	*.421	.036	.101	.228
Photography, video	.159	*.334	.134	.177	.042
Painting, etc.	.103	*.531	.095	.063	-.072

* Indicates variables within each factor

directly involving more creative arts and crafts.

A third dimension comprises needle crafts, gardening, weaving (and similar needle crafts), preparing gourmet meals, and (to a lesser extent) visiting arts and crafts fairs. This cluster reflects involvement in creative domestic activities that may be considered as traditionally feminine.

A fourth dimension clusters visiting science and history museums, historic sites, zoos or arboretums, and to a lesser extent arts and crafts fairs. In contrast to the first cluster, this group of activities is organized around more intellectual and aesthetic appreciation rather than physically active activities away from home. It also differs from the emphasis on creation of arts and crafts in the second and third clusters.

A fifth dimension somewhat loosely groups "backstage" production work -- both for plays, musicals, operas, and ballets, and for jazz or classical music performances. It suggests that people who have the interests and skills to perform such support activities for one type of performance are more likely to be interested in, and recruited for, similar work for other kinds of performances.

Thus, factor analysis suggests five separate groupings of recreational activities and leisure time activities. The first cluster largely excludes arts and crafts activities, except for a somewhat weak association with attending arts and crafts fairs. The fourth cluster has a stronger association with visiting arts and crafts fairs, and seems to represent art spectators rather than creators. The fifth cluster involves a closer, active, supportive involvement with the arts community, but as a nonperformer. The third cluster includes some active involvement in the arts (and crafts), as well as a weaker association with less active appreciation at arts and crafts fairs. Finally, the second cluster reflects activities involving creation of arts and crafts. In short, this analysis suggests that patterns of general life-styles do exist and arts and crafts stand in different relationships—active vs. passive, intellectual vs. manual, and domestic vs. away-from-home — with each life-style.

These types of clusters, then, can be cross-tabulated by attendance at "core" arts events to see whether they correlate with arts participation in terms of the core questions in Chapter 3. At the same time, we also see value in utilizing a general activity factor -- one involved in any leisure activity whether at home or away from home, and with or without an aesthetic character.

A spatial representation of these first two dimensions of the factor analysis is shown in Figure 5.1. The clustering of more general away-from-home activities (movies, zoos, etc.) is shown at the right hand side of Figure 1. The clusters of more active cultural activities (photography, painting, backstage work, etc.) is shown more at the top of Figure 1. (The other three clusters require more than a two-dimensional representation that cannot be shown in a diagram like Figure 1.)

Diagram 5.1: Clustering of Activities in First Two Dimensions from Factor Analysis

```
Horizontal               Vertical
 Factor 1     *          Factor 2
              *
              *
              *
              *
              *
              *
              *
              *
              *    26
              *
              *  2419
              *    2025
              *      11            6
              *    12     18           7
           21 * 22   15    3   10    1 4
              *23              13  5 2
              *
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
              *    14
              *
              *
              *
              *
```

1=Movie
2=Sports Event
3=Zoo
4=Games
5=Amusement Park
6=Exercise
7=Play Sports
8=Outdoor Activities
9=Volunteer Work
10=Books/Magazines
11=Collecting
12=Gourmet Meals
13=Repairs
14=Gardening
15=Non-art Museum
16=Historic Sites
17=Poetry
18=Arts/Crafts Fair
19=Art Classes
20=Pottery, etc.
21=Needle Crafts
22=Backstage Theatre Help
23=Backstage Music Help
24=Creative Writing
25=Photography
26=Painting, etc.

5) BACKGROUND DIFFERENCES IN INDICES OF RECREATIONAL AND CULTURAL ACTIVITIES

Our first analysis described how respondents with certain background characteristics are more likely to engage in particular recreational activities. We have now just found how these activities tend to cluster into overall dimensions or patterns that make it possible to simplify the prior analyses, by identifying persons with particular social backgrounds who may be more likely than others to engage in patterns of activities. In this section, we will analyze these relationships.

Involvement in patterns of activity is defined operationally through indices which measure the number of activities within a given set or cluster in which a respondent was involved. Thee indices are based on, but not strictly dictated by, the results of the factor analysis in the preceding section. As in Chapter 3, each respondent was given one point for each relevant activity in which they had participated in the previous 12 months.

Our analysis will treat five such indices: 1) all 26 recreational activities; 2) nine general activities carried on away from home--going out to movies, sports events, zoos (or arboretums or gardens), games, amusement parks, jogging, playing sports, outdoors activities, and volunteer activities; 3) five general activities usually carried on at home--reading books, collecting, making gourmet meals, making repairs or improvements, and gardening; 4) four cultural away-from-home activities -- visiting science museums, historic sites, and arts and crafts fairs as well as poetry readings; 5) eight arts and crafts activities --lessons such as literature, pottery work, weaving, production work for play/musical/opera/ballet, production work for jazz/classical music productions, creative writing, photography/film, and painting/drawing/sculpturing/or printmaking.

Table 5.6 examines the associations between ten background factors and the average index scores on each of these five sets of "life-style" activities for each group (i.e., the average number of activities within that set). Table 5.7 shows the same association for each variable, adjusted for the impact of the other background variables. These data indicate whether the factor is still a strong predictor (i.e., a useful explanatory factor) after controlling for other variables. The more important relationships will be described below for each of the indices.

i) Index of All Recreational Activities

In Table 5.6 better educated, wealthier, and younger people tend to be involved in more activities. In contrast, blacks, non-employed men, housewives, widows, separated spouses, and the non-working engage in fewer recreational activities than the average individual, as represented by the grand mean.

When other factors are taken into account in Table 5.7, the relationship between income and the index is considerably lessened, and widows and separated people also move to about average in their participation and those with children show increased participation. However, both age and education remain strong predictors of participation after controlling for other variables.

ii) Index of Recreational Activities Away from Home

Younger, better educated, wealthier individuals are also more likely to participate in a broad range of recreational activities away from home. After adjustment for the influence of other factors, the influence of age

Table 5.6: Indices of Recreational Activities by Background Factors: Unadjusted Percentages Above or Below the Grand Mean on the Index of Activities

	All Activities	Away From Home	At Home	Cultural Visits	Arts and Crafts
Grand Mean:	8.9	4.8	1.9	1.2	0.9
Income:					
Under $5,000	-2.6	-1.6	-0.6	-0.5	0.0
$5,000 - $9,999	-2.3	-1.3	-0.5	-0.4	-0.3
$10,000 - $14,999	-0.5	-0.2	0.1	-0.1	0.0
$15,000 - $24,999	0.6	0.3	0.1	0.1	0.0
$25,000 - $49,999	2.0	1.1	0.4	0.4	0.1
$50,000 and over	2.3	1.5	0.5	0.5	0.1
Not applicable	-0.3	-0.4	-0.2	0.0	-0.1
SMSA:					
Cent city of SMSA	-0.2	0.0	-0.1	0.0	0.0
SMSA, not cent city	0.7	0.4	0.1	0.1	0.1
Not in SMSA	-0.7	-0.5	-0.1	-0.1	-0.1
Age:					
18 - 24 years	1.8	1.5	0.1	0.0	0.3
25 - 34 years	2.1	1.2	0.3	0.3	0.2
35 - 44 years	0.8	0.5	0.3	0.2	0.0
45 - 54 years	-0.7	-0.5	0.0	0.0	-0.2
55 - 64 years	-1.9	-1.4	-0.1	-0.2	-0.3
65 - 74 years	-3.0	-2.2	-0.4	-0.4	-0.3
75 - 96 years	-5.4	-3.1	-0.8	-0.7	-0.5
Marital:					
Married	0.1	0.0	0.1	0.0	-0.1
Widowed	-3.6	-2.4	-0.6	-0.4	-0.2
Divorced	0.4	0.0	0.0	0.1	0.1
Separated	-1.8	-0.5	-0.4	-0.2	0.0
Never married	1.2	1.0	-0.2	0.0	0.3
Ethnic/Race:					
White, other origin	0.6	0.3	0.1	0.1	0.1
White, British Isles	0.4	0.1	0.1	0.2	0.0
White, W. Europe	0.6	0.2	0.1	0.1	0.0
White, E. Europe	0.3	-0.2	0.1	0.1	-0.1
Hispanic	-1.2	-0.6	-0.4	-0.2	-0.1
Black (ex. Hispanic)	-2.9	-1.3	-0.5	-0.5	-0.2
Other races	-1.0	-0.5	-0.1	0.1	-0.1
Gender/Work:					
Men employed	0.4	0.6	0.0	0.0	-0.3
Men other	-1.6	-0.6	-0.3	-0.3	-0.4
Women employed	1.5	0.6	0.2	0.3	0.4
Housewife	-1.6	-1.3	-0.2	-0.3	0.0
Women other	0.4	-0.1	0.0	0.2	0.6
Education:					
Grade School	-5.3	-2.8	-1.1	-0.9	-0.6
Attended High School	-3.7	-1.6	-0.6	-0.7	-0.4
High School Graduate	0.1	0.2	0.0	-0.1	0.0
Attended College	2.0	1.1	0.3	0.3	0.3
College Graduate	3.2	1.5	0.5	0.8	0.4
Attended Grad School	4.0	1.6	0.7	1.1	0.3
Work Hours:					
None	-1.2	-0.8	-0.2	-0.2	0.0
1 to 29	1.6	0.6	0.2	0.3	0.4
30 to 39	0.6	0.5	0.1	0.1	0.1
40 hrs.	0.3	0.5	0.1	0.0	-0.1
41 to 49	0.9	0.7	0.1	0.1	0.0
50 or more	1.3	0.9	0.3	0.3	-0.2
Presence of Children:					
No Children	-0.5	-0.3	-0.1	0.0	0.0
One 6-11	1.1	0.6	0.3	0.2	0.0
Two+ 6-11	1.2	0.7	0.3	-0.1	-0.1
One under 6	0.6	0.7	0.1	0.1	0.1
One 6-11, One under 6	1.5	0.8	0.4	0.1	0.0
One under 6, Two+ 6-11	1.2	0.5	0.3	0.1	0.1
Two+ under 6	2.1	1.2	0.1	0.2	0.1
One 6-11, Two+ under 6	1.4	1.2	0.2	0.0	0.2
Two+ 6-11, Two+ under 6	0.4	-0.2	0.2	-0.1	0.0

remains strong, but the influences of income and, to a lesser extent, education are attenuated. Those who have never been married and those with young children are also more likely to engage in these activities, but statistical adjustment shows that both of these higher rates are attributable to other factors, such as age or education.

iii) Index of Recreational Activities at Home

Better educated and wealthier individuals are more likely to engage in the five selected recreational activities at home. Older persons, blacks, Hispanics, widows and separated spouses generally participate in fewer of the domestic recreational activities, but part of these lower rates seems attributable to other factors, such as income and education.

iv) Index of Visits to Cultural Facilities

The better educated and the wealthier are more likely to visit cultural facilities (science museums, historic sites, etc.) but after statistical adjustment, education shows the strongest relationship to such activity. Older persons, Hispanics, blacks, non-employed men, housewives and widows are less likely than average to engage in this type of activity. After adjustment, only the differences by education remain clear and consistent.

v) Index of Arts and Crafts Activities

Better educated and younger persons, women other than housewives, and never married persons tend to involve themselves in a greater range of arts and crafts activities. The relatively high rate for the never married seems largely due to the influence of age.

In sum, these indices recapitulate how respondents of certain social backgrounds tend to be more involved in varying types and dimensions of recreational activities. Several relationships hold across the sets of activities, although in varying degrees of strength. They suggest how these five factors seem more interrelated than distinct from one another, as one would like to find if the activities were used to construct hypothetical life-styles based on these ten questions. Thus, we find younger, wealthier, better educated individuals, workers, residents of SMSA's outside of central cities, and employed women tend to engage in more activities within each set (all activities, at-home activities, away-from-home activities, cultural activities, arts and crafts). Interestingly, the common assumption that children inhibit recreational activities is not supported by these data; individuals without children at home do not participate in a greater number of activities within each set than do individuals with children. Generally, education is the strongest predictor of wider involvement in any of these sets of recreational activities, much as it was for the core arts activities.

Education is also the most powerful explanatory variable. The pattern of association between education and each set of activities is generally maintained after controlling all the other background variables. However, many of the other background variables are fairly weak explanatory factors. For example, after adjustment for other factors, income and SMSA account for little variation in any of the sets of activities.

Table 5.7: MCA-Adjusted Indices of Recreational Activities by Background Factors: Number of Activities Participated In, Above or Below the Grand Mean

	All Activities	Away From Home	At Home	Cultural Visits	Arts and Crafts
Grand Mean:	8.9	4.8	1.9	1.2	0.9
Income:					
Under $5,000	-0.7	-0.6	-0.1	-0.2	0.1
$5,000 - $9,999	-0.8	-0.5	-0.2	-0.1	-0.1
$10,000 - $14,999	-0.2	-0.2	0.0	0.0	0.0
$15,000 - $24,999	0.2	0.1	0.1	0.0	0.0
$25,000 - $49,999	0.7	0.5	0.1	0.1	0.1
$50,000 and over	0.8	0.8	0.2	0.0	-0.1
Not applicable	-0.3	-0.3	-0.2	0.0	-0.1
SMSA:					
Cent city of SMSA	0.2	0.2	0.0	0.1	0.0
SMSA, not cent city	0.1	0.1	0.0	0.0	0.0
Not in SMSA	-0.3	-0.2	0.0	0.0	0.0
Age:					
18 - 24 years	1.9	1.5	0.1	0.0	0.2
25 - 34 years	1.4	0.9	0.1	0.1	0.2
35 - 44 years	0.1	0.1	0.1	0.1	0.0
45 - 54 years	-0.7	-0.5	0.0	0.0	-0.1
55 - 64 years	-1.6	-1.2	-0.1	-0.1	-0.3
65 - 74 years	-1.8	-1.5	-0.1	-0.1	-0.2
75 - 96 years	-3.6	-2.2	-0.5	-0.4	-0.5
Marital:					
Married	0.1	0.0	0.1	0.0	0.0
Widowed	0.0	0.2	0.0	0.1	-0.1
Divorced	0.3	0.2	-0.1	0.0	-0.1
Separated	-0.2	0.1	-0.2	0.0	0.0
Never married	-0.4	-0.1	-0.3	-0.1	0.1
Ethnic/Race:					
White, other origin	0.4	0.2	0.1	0.1	0.0
White, British Isles	0.3	0.2	0.0	0.1	0.0
White, W. Europe	0.5	0.2	0.1	0.1	0.1
White, E. Europe	0.8	0.1	0.1	0.1	0.0
Hispanic	-0.7	-0.3	-0.2	0.0	-0.1
Black (ex. Hispanic)	-2.1	-1.0	-0.3	-0.4	-0.2
Other races	-2.2	-1.1	-0.3	-0.2	-0.3
Gender/Work:					
Men employed	0.1	0.5	0.0	0.0	-0.3
Men other	-0.9	-0.4	-0.1	-0.3	-0.3
Women employed	1.2	0.5	0.2	0.3	0.4
Housewife	-0.8	-1.0	-0.1	-0.3	0.1
Women other	0.2	-0.7	0.0	0.2	0.5
Education:					
Grade School	-3.0	-1.3	-0.6	-0.9	-0.4
Attended High School	-2.8	-1.1	-0.5	-0.7	-0.3
High School Graduate	-0.3	0.0	0.0	-0.1	-0.1
Attended College	1.1	0.6	0.3	0.3	0.2
College Graduate	2.5	1.0	0.5	0.8	0.4
Attended Grad School	3.6	1.1	0.6	1.1	0.4
Work Hours:					
None	0.9	0.7	0.1	0.0	0.1
1 to 29	0.0	-0.4	0.0	0.1	0.1
30 to 39	-0.7	-0.4	-0.1	0.0	-0.1
40 hrs.	-0.9	-0.6	-0.1	-0.1	-0.2
41 to 49	-1.0	-0.5	-0.1	-0.1	-0.1
50 or more	-0.5	-0.4	0.0	0.1	-0.1
Presence of Children:					
No Children	0.0	0.0	0.0	0.0	0.0
One 6-11	0.4	0.3	0.1	0.1	-0.1
Two+ 6-11	0.4	0.2	0.1	-0.3	-0.2
One under 6	-0.9	-0.3	-0.1	-0.1	-0.1
One 6-11, One under 6	0.3	0.0	0.2	0.0	0.2
One under 6, Two+ 6-11	0.5	-0.1	0.1	0.0	0.0
Two+ under 6	0.0	0.1	-0.1	0.0	-0.1
One 6-11, Two+ under 6	0.3	0.5	0.0	-0.2	0.1
Two+ 6-11, Two+ under 6	-0.2	-0.4	0.2	-0.1	0.0

6) RECREATIONAL ACTIVITIES, LIFE-STYLE AND PARTICIPATION IN THE ARTS

Single Recreational Activities: A major question in this study involved the relationship between recreational activities (or patterns of life-styles) and participation in the arts. Table 5.8 shows the correlations between each recreational activity and participation in each of the eight core arts activities. Table 5.9 shows the same basic type of conditional data except using a different measure -- the odds ratio. The odds ratio is the ratio of the probability of a person participating in Activity 2 given that they participate in Activity 1 divided by the probability of doing Activity 2 if they do not do Activity 1. The odds ratio, then, has a more directly interpretable quality to it than the correlation coefficient.

Almost all the correlations are positive in Table 5.8 and above 1.0 in Table 5.9, suggesting that arts participation is greater among those who are more active in other recreational and leisure time activities.

That indicates that the view that involvement in other recreational activities inhibits arts participation is in need of re-examination. Instead we are faced with the situation of "the more, the more". Somewhat paradoxically, the more one engages in potentially "competing" leisure activities, the more one attends arts events as well.

However, most of the correlation coefficients are relatively low (under .20) indicating that recreational activity is not a strong predictor of arts participation. Some of the stronger predictors of arts attendance are discussed below. (Correlations of 0.20-0.29 will be referred to as moderate; correlations of 0.30-0.39 as substantial; correlations of 0.40-0.49 as strong.) At the same time, the odds ratios indicate that while the correlation between going to movies and going to jazz performances is only

.77, those who attend movies are more than four times as likely to attend jazz performances as those who do not go to movies.

Table 5.8: Correlations between Life-Style Activities and Core Arts Activities

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Reading
Movie	.147	.140	.053	.171	.165	.104	.217	.284
Sports event	.122	.112	.052	.167	.128	.066	.152	.235
Zoo	.149	.156	.081	.176	.153	.106	.289	.223
Games	.115	.071	.019	.117	.105	.059	.139	.277
Amusement park	.096	.066	-.001	.106	.089	.053	.128	.181
Exercise	.157	.128	.033	.172	.143	.091	.203	.297
Play sports	.141	.106	.029	.151	.140	.077	.154	.204
Outdoor activities	.101	.096	-.007	.104	.085	.054	.139	.165
Books,magazines	.084	.128	.061	.147	.131	.078	.170	.407
Volunteer work	.095	.207	.086	.180	.190	.109	.196	.191
Collecting	.066	.086	-.011	.088	.098	.084	.177	.169
Gourmet meals	.124	.151	.079	.173	.143	.124	.217	.210
Repairs	.084	.077	.028	.085	.073	.035	.119	.151
Gardening	.052	.095	.024	.112	.093	.067	.120	.188
Non-art museums	.127	.245	.118	.253	.223	.118	.422	.242
Historic sites	.134	.221	.087	.236	.232	.147	.343	.306
Poetry	.130	.250	.105	.181	.204	.132	.254	.320
Arts/crafts fair	.134	.207	.067	.223	.189	.149	.288	.337
Art classes	.157	.159	.068	.111	.133	.094	.203	.179
Craft activities	.070	.070	.033	.048	.048	.027	.119	.136
Needle crafts	.025	.091	.036	.084	.049	.075	.092	.208
Backstage theatre help	.086	.163	.060	.173	.175	.069	.126	.107
Backstage music concert help	.146	.150	.058	.057	.058	.057	.085	.058
Creative writing	.192	.144	.028	.104	.139	.090	.208	.174
Photography, video	.092	.122	.041	.108	.106	.048	.208	.151
Painting, etc.	.114	.105	.035	.072	.077	.044	.219	.154

Jazz

In general, the recreational activities examined in this study do not seem very useful in predicting attendance of jazz performances. The best odds ratios for attendance of jazz performances, are creative writing, going to movies and doing backstage work at musical performances.

Classical Music

Several recreational activities have a moderate relationship with attending classical music performances. Those who visit non-art museums, who listen to or read poetry, who visit historic sites, who visit arts or crafts fairs, who do volunteer work, or who read books or magazines are somewhat more likely to attend classical music performances than those who do not engage in these activities.

Opera

None of the life-style activities was even a moderately strong correlate of opera attendance in Table 5.8. (although the low correlations may be a function as well of the low frequency of opera attendance). The highest odds ratios for opera are very similar to those found for classical music: visiting science museums, historic sites, reading poetry, doing backstage work at musical performances, and reading books and magazines.

Musicals

Several of the recreational activities were moderately strong correlates of attending live musicals. Persons who visit either science museums, arts or crafts fairs, historic sites, zoos, or the movies are somewhat

Table 5.9: Odds-Ratios of Participation in Various Recreational Activities Arts Participation

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Reading
Movie	4.4*	3.2	2.9	3.0	4.2	4.4	3.8	1.8
Sports event	2.6	2.1	2.0	2.4	2.3	2.2	2.2	1.5
Zoo	2.7	2.6	2.6	2.3	2.4	2.7	3.2	1.5
Games	3.2	1.9	1.4	2.1	2.3	2.3	2.3	1.8
Amusement park	2.1	1.6	1.1	1.7	1.7	1.6	1.9	1.4
Exercise	3.5	2.5	1.6	2.4	2.6	2.6	1.2	1.7
Play sports	3.2	1.9	1.5	2.0	2.3	2.3	2.0	1.4
Outdoor activities	2.1	1.7	.9	1.6	1.6	1.8	1.9	1.3
Book/Magazine	2.7	4.1	3.3	2.7	3.7	4.8	3.2	3.2
Volunteer work	1.9	3.1	2.6	2.2	2.8	3.0	1.7	1.4
Collecting	1.8	1.8	1.1	1.6	1.8	2.5	2.3	1.4
Gourmet meals	2.2	2.6	2.6	2.1	2.6	3.1	2.5	1.5
Repairs	1.9	1.8	1.4	1.5	1.6	1.4	1.9	1.3
Gardening	1.4	2.1	1.8	1.8	1.9	2.0	1.8	1.3
Non-art museum	2.4	2.5	4.7	2.9	2.0	3.2	5.1	1.6
Historic sites	2.7	4.1	2.9	3.0	4.0	5.3	4.6	1.7
Poetry	2.7	3.7	3.9	2.2	3.1	4.3	2.8	1.4
Arts/crafts fair	2.6	4.0	2.5	2.9	3.0	6.1	3.6	1.8
Art classes	3.1	2.6	3.2	1.9	2.4	3.3	2.4	1.5
Craft activities	1.8	1.8	1.9	1.4	1.5	1.5	2.1	1.4
Needle crafts	1.2	1.8	1.7	1.6	1.4	2.4	1.6	1.4
Backstage theatre help	3.3	4.0	2.6	3.1	4.1	4.1	2.4	1.5
Backstage music concert help	6.4	4.3	3.9	2.2	2.8	5.2	2.1	1.6
Creative writing	4.0	3.1	2.1	2.1	3.0	4.1	2.7	1.5
Photography, video	2.2	2.2	1.7	1.9	2.0	2.0	2.1	1.5
Painting, etc.	2.6	2.1	2.0	1.6	1.9	2.3	2.5	1.4

* Entries can be read as follows: The probability of attending a live jazz performance among respondents who reported going out to a movie was 4.4 times higher than among respondents who did not report going out to a movie.

more likely to attend than non-participants in these activities. Much the same assumptions are suggested by the odds ratio.

Plays

Many of the same recreational activities related to attendance at musicals are moderate correlates of attendance at stage plays. Again, visiting science museums, historic sites, and arts and crafts fairs are moderate correlates of attendance at stage plays, as is reading or listening to poetry. Backstage theatre work, movie attendance and visiting historic sites have relatively high odds-ratio relations with attending plays.

Ballet

None of the life-style activities is a moderate correlate of attendance at ballet performances, although this again may be a function of the low proportion who go to the ballet. The odds ratios suggest much the same pattern of correlates for ballet as for the previous activities, but with additional associations with volunteer work, gourmet meal preparation and art classes.

Art Museums

A number of recreational activities are at least moderate correlates of attendance at art museums or galleries. While visiting science museums or historic sites is strongly related to visiting art museums, going to arts or crafts fairs or visiting a zoo are also substantially related to such attendance. Other recreational activities that are moderately correlated include: attending the movies, jogging, reading books or magazines, doing charity work, preparing gourmet meals, reading or listening to poetry, writing literature, making photographs/movies/videotapes, and painting/drawing/sculpturing/ printmaking. Much the same variables are highlighted by the odds-ratios mean.

Reading

Again, many recreational activities correlate with increased participation. As might be expected, general reading is a very strong correlate. Visiting arts and crafts fairs, reading or listening to poetry, and visiting historic sites are also substantial predictors. The moderate predictors are numerous: going to the movies, going to sports events, visiting the zoo, playing games, jogging, engaging in sports activities, preparing gourmet meals, visiting science museums, and weaving/sewing. However, the odds ratios suggested a much lower degree of association with core arts participation (except for reading books and magazines), with participants usually less than twice as likely to read literature as non-participants.

To summarize, the degree to which recreational activities relate to arts attendance varies considerably. Virtually all of the recreational activities correlate positively with all of the core arts participation items, meaning again that the more one does each of these recreational activities, the more one participates in the arts. But some recreational activities correlate more highly than others in both Table 5.8 and Table 5.9. The strongest correlates of attendance are visiting science museums, visiting historic sites, general reading, listening to poetry, visiting arts or crafts fairs and going out to the movies. While even these activities generally are only moderately correlated with attendance at arts events or with reading literature, participation is still generally associated with from two to six times as high a likelihood of arts participation as non-participation, in general being about three times as high.

In general, the recreational activities that relate least well to arts participation are going to amusement parks, outdoor activities like camping, working on stamp or other collections, doing home and auto repairs, gardening and plant care, potting and similar crafts. Still these recreational activities are related to up to twice as high levels of arts participation, averaging about 50% more participation.

Examined from the other perspective, asking which arts activities are related to recreational activity, the one activity that stands out in both Tables 5.8 and 5.9 is opera, which has the weakest relationship with other recreational activities.

Recreational Dimensions: A second level of analysis examines whether involvement in dimensions or clusters of recreational activities is associated with participation in the arts. In other words, we relate arts participation to certain combinations of activities suggested in the factor analysis.

The correlational data relevant to this analysis are presented in Tables 5.10 and 5.11. As in the previous section, the degree of activity on each dimension is measured by the simple index of recreational activities the respondent engaged in within that cluster of activities. The four indices used are those in our earlier analysis: activities at home, cultural activities and arts and crafts activities.

Table 5.10 shows the association between the number of activities on that dimension and the rate of participation in each arts activity. Data

Table 5.10: Participation Rates for Various Arts Activities by Number of Recreational Activities Away From Home or At Home: Percentage of Respondents Above or Below the Grand Mean

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Arts Participation Index
Grand Mean*	9.5%	11.7%	2.8%	18.6%	11.8%	4.0%	21.9%	0.8 **
Away from Home:								
0	-9.1	-11.4	-2.8	-18.3	-11.8	-3.6	-21.5	-0.8
1	-8.5	-10.2	-2.7	-16.4	-10.7	-3.1	-19.1	-0.7
2	-6.1	-8.1	-1.4	-12.7	-8.7	-2.8	-16.2	-0.6
3	-6.9	-3.0	-0.3	-7.6	-4.9	-2.7	-11.7	-0.4
4	-4.4	-1.8	0.3	-1.3	-1.1	-0.9	-4.5	-0.1
5	-0.1	3.0	0.9	4.8	1.9	0.5	0.2	0.1
6	1.7	2.3	1.8	2.7	1.4	0.0	5.6	0.2
7	3.0	4.1	1.0	9.5	6.1	2.5	12.9	0.4
8	12.1	6.6	0.3	10.9	8.4	3.0	19.2	0.6
9	15.8	14.1	0.3	18.8	14.2	5.7	22.6	0.9
At Home:								
0	-5.1	-9.9	-2.0	-13.3	-8.7	-3.7	-16.7	-0.6
1	-3.7	-6.8	-1.4	-7.6	-5.9	-2.0	-10.8	-0.4
2	-1.4	-0.7	0.4	-0.2	-0.1	0.2	-1.6	-0.0
3	4.4	7.7	0.5	8.1	4.7	0.5	10.6	0.4
4	7.9	12.8	3.6	17.3	13.7	6.1	26.0	0.9
5	13.7	19.4	2.4	18.6	17.6	10.6	28.3	1.1
Grand Mean*	9.7%	11.9%	2.2%	19.1%	11.2%	3.6%	22.2%	0.8%
Cultural Activities:								
0	-5.2	-9.9	-1.8	-12.8	-8.2	-3.1	-18.8	-0.6
1	-1.7	-3.6	-0.2	-3.2	-3.8	-1.8	-9.2	-0.2
2	1.4	5.2	0.8	8.3	3.7	1.7	11.5	0.3
3	8.0	15.1	1.4	21.5	15.0	5.2	34.4	1.0
4	20.6	32.5	8.4	27.2	26.6	11.5	52.2	1.8
Arts/Crafts:								
0	-4.1	-5.8	-1.0	-6.3	-4.4	-2.1	-10.3	-0.3
1	-0.5	1.3	0.1	3.3	1.2	0.7	2.5	0.1
2	5.8	8.8	2.0	6.1	5.0	1.2	11.6	0.4
3	8.3	9.7	1.4	7.2	7.9	3.5	22.9	0.6
4	22.9	20.7	2.5	24.8	17.7	9.3	47.2	1.5
5	33.9	24.2	6.0	33.7	18.4	16.4	44.5	1.8
6	25.3	49.0	13.6	39.2	47.1	25.6	43.6	2.4
7	37.7	88.1	-2.2	80.9	88.8	43.8	25.2	3.6

* Different grand means are due to different sample sizes for responses to rotated questions.

** Participation index based on jazz, classical music, opera, musicals, plays, ballet and art museums, but does not reflect reading activity.

are presented in terms of deviation from the total proportion for each of the art forms. Table 5.11 shows the same associations, adjusted for nine demographic variables by MCA. These associations indicate to what extent variations in arts participation can be attributed to background factors, rather than to a particular set of activities. As in Table 5.10, the data in Table 5.11 are shown in terms of deviations below and above the average proportion for the entire sample. We will here confine our discussion to these adjusted figures (which are about one-half to two-thirds the range of the unadjusted figures). Thus, the -7.2 entry for jazz in Table 5.10 for the 0 Activity group means that 7.2% should be subtracted from the overall 9.5% percentage rate for the entire sample, leaving the proportion participating in the 0 Activity group as 2.3% -- a very low rate in comparison to the 12.5 + 9.5 = 22% rate for those doing all nine away-from-home activities.

Jazz

Attendance at jazz music performances relates positively to greater involvement in all of the recreational dimensions. In each case (activities away from home or at home; cultural activities and arts-crafts), the larger the number of activities, the greater the deviation above the mean in terms of attendance. Thus, in contrast to those who engage in none of the away-from-home activities (7.2% below average) were those involved in nine such activities are 12.5% above the mean in attendance. Other dimensions show the same pattern of association; with the arts and crafts index showing a stronger association, with a difference of over 25 percentage points between the lowest and highest number of activities.

Table 5.11: MCA-Adjusted Participation Rates for Various Arts Activities by Number of Recreational Activities Away From Home or At Home: Percentage of Respondents Avove or Below the Grand Mean

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Arts Participation Index**
Grand Mean*	9.5%	11.7%	2.8%	18.6%	11.8%	4.0%	21.9%	0.8
Away from Home:								
0	-7.2	-5.3	-1.3	-12.7	-7.3	-0.7	-11.8	-0.5
1	-5.4	-5.7	-1.5	-12.2	-6.9	-1.0	-11.7	-0.5
2	-3.7	-4.8	-0.7	-9.7	-6.0	-1.3	-11.3	-0.4
3	-5.0	-1.7	-0.2	-6.8	-3.6	-2.2	-9.5	-0.3
4	-3.3	-1.6	0.1	-1.9	-1.2	-1.1	-4.6	-0.1
5	-0.1	2.4	0.8	4.1	1.9	0.3	-0.6	0.1
6	0.6	0.4	1.5	0.9	-0.1	-0.7	3.1	0.1
7	1.0	2.3	0.5	8.1	4.6	1.5	9.5	0.3
8	9.6	3.4	-0.3	8.5	5.6	1.7	14.1	0.4
9	12.5	9.1	-0.6	15.2	10.2	3.8	14.9	0.7
At Home:								
0	-1.6	-4.7	-1.0	-3.4	-2.6	-2.2	-6.8	-0.2
1	-1.5	-3.9	-0.9	-3.0	-2.7	-0.8	-5.6	-0.2
2	-1.4	-0.7	0.4	-0.7	0.2	0.4	-1.9	-0.0
3	2.0	4.3	-0.2	2.0	0.7	-0.8	4.4	0.1
4	3.6	7.1	2.6	8.0	7.2	3.8	15.6	0.5
5	8.4	11.9	1.3	6.4	8.7	7.8	15.0	0.6
Grand Mean*	9.7%	11.9%	2.2%	19.1%	11.2%	3.6%	22.2%	0.8%
Cultural Activities:								
0	-3.1	-6.1	-1.2	-7.9	-4.8	-1.7	-14.2	-0.4
1	-1.1	-2.8	-0.1	-2.7	-2.9	-1.5	-8.7	-0.2
2	0.1	3.1	0.5	5.1	1.5	1.1	8.6	0.2
3	5.0	9.9	0.5	14.9	10.1	3.2	28.2	0.7
4	14.3	21.9	6.4	15.2	17.0	7.3	41.6	1.2
Arts-Crafts:								
0	-2.6	-1.8	-0.3	-0.9	-0.7	-0.4	-2.7	-0.1
1	0.0	-0.9	-0.3	0.4	-0.2	-0.3	-0.4	0.0
2	3.4	3.9	1.1	-0.7	0.2	-0.6	1.4	0.1
3	3.7	3.7	0.6	-0.6	2.0	1.2	9.3	0.2
4	15.3	8.3	0.5	8.6	4.6	5.2	21.9	0.7
5	24.2	10.6	3.2	18.4	4.8	11.2	15.1	0.8
6	16.8	31.8	10.5	20.8	30.0	19.9	13.9	1.4
7	22.6	58.5	-9.6	59.3	64.1	33.5	-23.5	2.0

Control factors are income, SMSA, age, ethnicity, gender/work education, marital status, number of children and number of work hours.

* Different grand means are due to different sample sizes for responses to rotated questions.

** Participation index based on jazz, classical music, opera, musicals, plays, ballet and art museums, but does not reflect reading activity.

Classical Music

Attendance at classical music performances is also related to more involvement on all four indices but in varying degrees of strength. For the away-from-home recreational activities the range of attendance between lowest and highest involvement is over 14%; for at-home activities, it is about 16%. But for cultural activities and arts/crafts, the associations are much stronger with a spread of 28% and over 60% respectively between those with lowest versus highest participation scores on the index.

Opera

The relationships between recreational indices and opera attendance are generally weaker than for jazz or classical music performances. Both at-home and away-from-home activities show relatively small deviations from the mean. Involvement in cultural activities has some association with attendance while arts/crafts involvement shows an association which actually reverses at the highest level (7) of activity, although there are relatively few respondents involved.

Musicals

More regular and positive associations are found between all four indices and attendance at musicals. The association is strongest for arts/crafts which shows a range from 1% below the mean (no activities) to 59% above the mean, for those engaging in seven arts/crafts activities. The other dimensions show similarly consistent patterns but the associations are not as strong. As will be found with plays (below), attendance is more strongly related to away-from-home recreational activities than to at-home activities.

Plays

Attending non-musical stage plays is also associated with each recreational dimension in varying degrees of strength. The following figures show the range of deviation from the mean between those with no involvement and those with highest involvement on each dimension:

Away-from-home	17.5 percentage points
At-home	11.3
Cultural activities	21.8
Arts/crafts	64.8

Again involvement on the arts/crafts activity index shows the strongest association with arts attendance in the case of plays.

Ballet

Once again, the arts/crafts dimension is the major predictor of attending the ballet with 38% of those reporting all seven arts/crafts activities going to the ballet compared to less than 4% of those reporting no arts/crafts activities. For ballet, participation in at-home activities relates more consistently with attendance than participation in away-from-home activities, which shows lowest ballet attendance for those with intermediate amounts of away-from-home activities. This pattern stands in contrast to musicals and plays where away-from-home activities correlated more strongly.

Art Museums

Here the relations with the arts/crafts index are lower than for the other three dimensions (activities at-home, away-from-home, and cultural activities). The strongest association is with cultural activities, with a range of over 55% between those with least and most involvement. It will be remembered that cultural activities include visits to non-art museums, suggesting considerable overlap in visits to both art and non-art museums.

Reading

Reading literature is strongly associated with all four recreation indices, but particularly for the away-from-home activities -- which is surprising in the sense that such reading is usually done at home and not away from home. The relation with the arts/crafts index shows some inconsistencies in the overall relation unlike the case for most other arts activities.

Briefly, fuller involvement in each recreational dimension (as measured by participation in a greater number of activities on each dimension) is generally associated with more participation in each of the arts. Moreover, this pattern is maintained after controlling for a series of nine background variables (Table 5.11). People who report themselves as more active in any cluster of recreational and leisure time activities are also more likely to report attending arts events -- and reading serious forms of literature. The arts/crafts dimension (which involves a relatively small percentage of the population) is a particularly strong predictor of participation in the arts.

These relations are summarized conveniently in the final columns of Tables 5.10 and 5.11, which show differences in the overall index of arts participation (with the average score of .8 as described in Chapter 3) by each of the four recreational life-style indices. It can be seen in Table

5.11 that arts participation rises quite regularly and consistently for all four recreational indices. Consistent with the pattern of results noted above, the differences in participation are sharpest for the arts/crafts dimension, then for the cultural visits dimension, then for the away-from-home and at-home dimensions. In general, the range of adjusted differences in Table 5.11 is only one-half to two-thirds as large as the range of unadjusted differences found in Table 5.10. That rough rule-of-thumb probably should be applied to the other unadjusted figures we have examined in this chapter.

SUMMARY

Several findings about recreational and cultural activities have emerged in this chapter. The extent of adult involvement in a series of 26 separate activities ranged considerably from a high of 84% who read books or magazines to a low of 7% for those doing backstage work for jazz and classical music performances.

Involvement in these activities varies among sub-groups of the population; the better educated, those from wealthier households, and younger adults are typically most likely to engage in each recreational activity generally, with education being the single strongest predictor. Even after adjustment for other demographic variables, education emerges as the strongest explanatory factor for involvement in recreational and leisure time activities -- much as was true for the core arts participation questions in Chapter 3.

In addition to considering these activities individually, we determined how responses formed into dimensions or clusters of activities which tend to be associated with each other. These were used to construct indices of leisure life-styles. Five clusters of activities were identified and these were classified into four broad categories: activities carried on at home; those occurring away from home; cultural activities and arts and crafts activities. An analysis of population sub-groups again revealed that the better-educated, the more affluent and younger adults were more likely to participate in each of these life-styles based on sets of recreational activities.

The final sections of this chapter examined the relationship between arts participation and each recreational activity and these four dimensions of recreational life-styles. Certain recreational activities emerged as moderate correlates of arts participation -- particularly visiting (non-art) museums, historic sites and arts/crafts fairs; general reading and readings of poetry; and attending movies. However, almost all recreational activities were related to more arts participation, and few distinct clusterings of recreational activities and arts activities were found.

When recreational activities were clustered into general life-style indices, they again emerged as successful predictors of arts participation; the greater the involvement on all four dimensions (as measured by number of activities), the greater the likelihood of participation in the arts. The index of arts and crafts participation was particularly strong in its predictive ability. These associations were maintained when controls on background factors were introduced.

Chapter 6

ARTS PARTICIPATION VIA THE MASS MEDIA

The mass media make art performances available to the general public on a scale far beyond that of live performances or art events. Television, radio, and recordings can transmit the arts from a public setting to more private settings. Performances in New York, Milan, or New Orleans can be enjoyed in one's own home or car or even at the beach. In order to assess the nature and extent of arts participation through the mass media, respondents were asked a series of questions on this subject (Table 6.1).

This chapter examines respondents' answers to these mass media questions (aggregated for the three months -- June, November, and December for which they were asked). The following questions are also treated by further analyses of the responses:

1) What is the extent of public participation in each of the arts via each of three mass media? What are the relative sizes of the arts audiences reached through the mass media? How do the sizes of the audiences compare to those on attendance of the same arts?

2) Do people with certain background characteristics have higher rates of participation in the arts via the mass media?

3) Can patterns be discerned between the use of specific mass media and participation in particular arts? Does participation tend to be organized around a specific medium for a variety of arts or around a variety of media for a particular art? For example, are respondents more likely to follow several art forms through recordings or follow jazz through several media?

4) Do people of different backgrounds rely on a broader range of mass media to participate in a particular art forms? Blacks may be more likely to listen to jazz via the radio, but are blacks or whites likely to follow jazz through more types of media? Are these differences better accounted for by other factors?

5) Do people of different backgrounds participate in varying numbers of arts through television, radio, or recordings? Are these differences better accounted for by other factors?

6) How does media exposure influence attendance of public performances? Media exposure could either substitute for or supplement attendance of live art performances.

7) Are people who participate in the arts through more media channels also more likely to attend art performances?

1) MASS MEDIA QUESTIONS AND RESPONSES

The survey included questions to determine the usage of mass media during the last 12 months for arts presentation--jazz, classical music, opera, musicals, non-musical stage plays, ballet, and art displays. The mass media included television, radio, and audio recordings (tapes or records). Media participation in non-musical plays was restricted to radio and television; media participation in ballet and the visual arts was restricted to television.

In addition to these questions about the specific use of the media for arts participation, an additional question was asked about the extent of the respondents' daily television viewing. This question provides a better perspective as to whether television viewing facilitates or inhibits attendance at arts performances. It also makes it possible to see whether greater viewing of television is related to the use of the medium for arts events.

Table 6.1 shows the exact wording of the questions as well as the responses for them. For example, of the 4037 respondents, 708 watched a jazz performance on television and 3315 did not; no data were available for 14 respondents. Question 14, which has a unique format indicates that 226 respondents reported watching television less than half an hour per day, 745 respondents reported watching one hour per day, 1040 respondents (the mode) reported watching two hours per day, etc.

Table 6.1: Number of Respondents Using Media for Arts Content (N=4037)

MEDIA PARTICIPATION

14. Approximately how many hours of television do you watch on an average day?

0= 226 6=199
1= 745 7= 44
2=1040 8= 76
3= 755 9= 11
4= 551 10= 43
5= 274 11= 47

_______ Number of hours
0 ☐ None/Don't watch television

15a. During the LAST 12 MONTHS, did you watch a jazz performance on television?

0 ☐ No 3315
1 ☐ Yes 708 14

b. (During the LAST 12 MONTHS,) Did you listen to a jazz program on radio?

0 ☐ No 3316
1 ☐ Yes 697 24

c. (During the LAST 12 MONTHS,) Did you listen to jazz records or tapes?

0 ☐ No 3206
1 ☐ Yes 781 50

16a. During the LAST 12 MONTHS, did you watch a classical music performance on television?

0 ☐ No 3013
1 ☐ Yes 1009 15

b. (During the LAST 12 MONTHS,) Did you listen to a classical music program on radio?

0 ☐ No 3211
1 ☐ Yes 794 32

c. (During the LAST 12 MONTHS,) Did you listen to classical music records or tapes?

0 ☐ No 3109
1 ☐ Yes 881 47

17a. During the LAST 12 MONTHS, did you watch an opera on television?

0 ☐ No 3524
1 ☐ Yes 499 14

b. (During the LAST 12 MONTHS,) Did you listen to an opera music program on radio?

0 ☐ No } *Go to 17c* 3715
1 ☐ Yes } 282 40

17c. (During the LAST 12 MONTHS,) Did you listen to opera music records or tapes?

0 ☐ No 3710
1 ☐ Yes 304 23

18a. During the LAST 12 MONTHS, did you watch a musical stage play or an operetta on television? Exclude movie versions of musical plays and operettas.

0 ☐ No 3189
1 ☐ Yes 824 24

b. (During the LAST 12 MONTHS,) Did you listen to a musical stage play or an operetta on radio?

0 ☐ No 3836
1 ☐ Yes 171 30

c. (During the LAST 12 MONTHS,) Did you listen to a musical stage play or an operetta on records or tapes?

0 ☐ No 3653
1 ☐ Yes 347 37

19a. During the LAST 12 MONTHS, did you watch a non-musical stage play on television? Do not include movies, situation comedies, or TV series.

0 ☐ No 2979
1 ☐ Yes 1040 18

b. (During the LAST 12 MONTHS,) Did you listen to a radio performance of a non-musical stage play?

0 ☐ No 3836
1 ☐ Yes 158 43

20. (During the LAST 12 MONTHS,) Did you watch a ballet program on television?

0 ☐ No 3341
1 ☐ Yes 670 26

21. During the LAST 12 MONTHS, did you watch a television program dealing with art galleries or things in art museums?

0 ☐ No 3088
1 ☐ Yes 920 29

2) POPULATION ESTIMATES FOR MEDIA PARTICIPATION IN THE ARTS

After the sample is weighted to correct any discrepancies in proportions of age, sex, and race, the distribution of responses can be generalized to the U.S. adult population. Table 6.2a presents these estimated percentages of the population participating in the arts through the media, while Table 6.2b translates these percentages into numbers of adults in the U.S. population. For purposes of comparison, the population estimates of those attending live performances are also presented in the first table.

Table 6.2a: Estimated Percentages of U.S. Adults Participating in the Arts via TV, Radio and Recordings

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums
Via TV	18.0%	24.8	12.0	20.4	26.0	16.4	22.8
Via Radio	18.0	20.0	7.2	4.4	3.6	NA	NA
Via Records/ tapes	20.0	22.0	7.6	8.4	NA	NA	NA
(Attended)	(9.6)	(13.0)	(3.0)	(18.7)	(11.9)	(4.0)	(22.1)

Table 6.2b: Estimates of U.S. Adults Participating in the Arts via TV, Radio and Recordings (in thousands)

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums
Via TV	29,724	40,604	19,776	33,384	42,568	26,820	37,344
Via Radio	29,740	32,660	11,576	7,096	6,248	NA	NA
Via Records/ Tapes	32,928	36,100	12,228	13,668	NA	NA	NA

Table 6.2c: Percentage of U.S. Adults Watching TV Various Numbers of Hours on an Average Day

		Cumulative
0 hours	5.6%	5.6%
1	18.4	24.0
2	26.0	50.0
3	18.8	68.8
4	13.6	82.4
5	6.8	89.2
6	4.8	94.0
7	1.2	95.2
8+ hours	4.8	100.0

Reading across Table 6.2a provides a comparison of the proportion of the adult public who use one medium to participate in various art forms. Classical music, plays, and art exhibits draw the largest audiences on television; jazz and classical music attract the largest audiences via radio as well as through recordings. (The comparisons are not entirely parallel since not all arts activities are distributed through each of these media.)

On the other hand, reading down the columns of Table 6.2a indicates the proportion of the public reached by each medium for each art form. Each of the three media reaches a jazz audience of about one-fifth of the adult public or an audience roughly double that of recent attendees of live jazz performances. A fifth to a quarter of U.S. adults participate in classical music through each of the media (not necessarily the same individuals through each medium), which is also about twice the audience size of recent attendees of a live performance. The opera audience via either radio or recordings is about two-thirds that of opera's television audience, which is four times as large as the audience of recent live performances. Two to four times as many people follow musicals on television as on radio or recordings, an audience size which is only somewhat greater than that of live musicals. Similarly, a much larger audience follows ballet on television than at live performances. Finally, the number of people who visit art exhibits is approximately equal to the television audience for discussion and presentations of visual art. In short, television usually captures a larger audience for the arts than do other media or live "core" art performances.

The percentage of respondents who estimated the number of hours spent watching television is presented in Table 6.2c. (The percentages reflect corrective weightings for age, sex, and race to approximate the U.S. population more accurately.) Based on the respondents' reports of their viewing habits, half of American adults watch two or fewer hours of television per day, while a sizeable proportion--almost a third--watches four or more hours per day, and only a very small proportion watch less than a half hour per day. Television viewing has truly become an ingrained part of the everyday leisure activities of the American public.

3) BACKGROUND DIFFERENCES IN MEDIA USAGE

Media usage varies among sub-groups based on background factors such as income, age, ethnicity-race, gender, and education. Tables 6.3a and 6.3b present these variables as predictors of media usage, while Tables 6.4a and 6.4b show the same associations for each variable after adjustment for the impact of the other four variables. Comparing the two tables reveals the most important predictors and explanatory factors of participation in five arts activities via the mass media.

The most important predictor of participating in the arts through the media is typically educational level. The other predictors fluctuate in importance, but gender is almost always the poorest predictor. The more important relationships for arts participation through the mass media are discussed below.

Before discussing the results of these analyses, it is important to note that caution is needed in considering the ethnicity-race factor. The Census Bureau interviewers did collect information about the respondents' ethnic-racial background, including the country or the ethnic group with which the respondent identified or felt was their country of origin. However, ethnic-racial background can be very difficult to measure; respondents sometimes don't even know their ethnic-racial origins. Because of such measurement problems, we have presented no formal analysis of this variable in the text, although ethnic distinctions are provided in the tables in this chapter.

Amount of Television Viewing

The number of hours of viewing television generally decreases with higher age and education levels, but most of the variation within income

Table 6.3a: Arts Participation Via Media and Average Number of Daily TV Hours by Background Factors: Percentage of Respondents Above or Below the Grand Mean

	Jazz on TV	Jazz on Radio	Jazz on Recording	Classical Music on TV	Classical Music on Radio	Classical Music on Recording	TV Hours
Grand Mean:	18.1%	18.3%	20.2%	24.7%	20.1%	22.2%	2.95
Income:							
Under $5,000	-5.3	-2.3	-6.9	-10.2	-8.2	-11.3	.62
$5,000 - $9,999	-6.3	0.3	-5.7	-8.8	-5.5	-8.2	.41
$10,000 - $14,999	-3.5	-2.2	-3.3	-3.2	-5.5	-3.9	.17
$15,000 - $24,999	1.8	0.7	2.0	2.5	0.7	1.5	.07
$25,000 - $49,999	3.5	1.1	4.1	5.0	5.1	5.5	-.48
$50,000 and over	8.3	2.1	9.9	21.7	19.5	15.9	-.53
Not ascertained	3.9	0.4	1.6	1.2	3.6	6.5	-.35
Age:							
18-24	0.1	6.8	6.9	-8.9	-7.9	-6.1	.22
25-34	5.0	7.7	8.0	-3.3	2.2	3.7	-.09
35-44	-1.0	-2.0	-2.1	1.2	4.6	3.1	-.51
45-54	0.9	-1.5	-0.8	9.4	3.2	3.6	-.19
55-64	1.9	-4.2	-4.5	8.3	2.6	3.8	.04
65-74	-5.7	-10.2	-10.2	1.0	-2.8	-5.7	.47
75-96	-14.6	-16.4	-18.8	-5.1	-7.1	-12.7	.70
Ethnic-Race:							
White, Other Origin	-1.8	-2.3	-1.8	-0.4	0.1	1.3	-.06
White, British Isles	2.1	-1.8	-2.5	4.5	1.5	4.0	.00
White, W. Europe	-1.3	-3.2	-1.5	2.6	-0.5	-2.0	-.16
White, E. Europe	-2.1	-1.7	1.2	15.8	11.0	12.2	-.03
Hispanic	-1.1	0.1	-0.5	-3.0	-0.4	-6.4	.00
Black (ex. Hispanic)	9.9	18.3	16.7	-8.8	-4.2	-10.0	.66
Other Races	3.0	4.7	0.5	5.4	8.4	8.6	-.58
White (unknown origin)	-5.7	-6.8	-17.0	-6.0	-13.4	-6.0	-.06
Sex:							
Male	1.6	2.2	1.2	-1.2	0.5	-0.9	-.21
Female	-1.4	-1.9	-1.0	1.1	-0.5	0.8	.19
Education:							
Grade school	-13.1	-10.9	-15.6	-14.8	-11.2	-15.9	.26
Some high school	-7.9	-6.6	-8.4	-12.2	-8.4	-12.1	.77
High school graduate	-1.4	-2.1	-2.9	-2.9	-6.6	-6.3	.25
Some college	3.5	3.0	5.4	3.7	1.1	4.5	-.31
College graduate	8.0	9.1	12.2	15.4	19.7	20.5	-.71
Graduate school	17.8	16.0	18.9	24.2	31.2	33.3	-1.04

Table 6.3b: Arts Participation Via Media by Background Factors: Percentage of Respondents Above or Below the Grand Mean

	Opera on TV	Opera on Radio	Opera on Recording	Musical on TV	Musical on Radio	Musical on Recording	Play on TV	Play on Radio	Ballet on TV	Art Museu on TV
Grand Mean:	12.1%	7.2%	7.6%	20.6%	4.5%	8.5%	26.4%	3.8%	16.7%	23.1%
Income:										
Under $5,000	-5.0	-2.0	-4.3	-9.5	-0.9	-4.1	-13.3	-0.1	-5.1	-10.3
$5,000 - $9,999	-4.1	-1.9	-3.3	-5.8	-2.0	-4.1	-7.7	0.2	-5.8	-7.3
$10,000 - $14,999	-2.7	-0.8	-1.2	-4.1	-0.8	-3.7	-5.9	-0.7	-5.2	-5.4
$15,000 - $24,999	1.1	-0.8	0.3	1.3	-0.4	-0.3	1.8	0.3	1.6	0.3
$25,000 - $49,999	2.9	0.9	1.7	5.7	0.1	4.1	7.5	0.8	4.9	9.6
$50,000 and over	12.0	7.5	5.8	15.1	7.0	11.9	28.3	-1.7	12.1	19.6
Not ascertained	0.8	3.4	4.1	1.8	3.5	2.4	-0.3	-1.0	1.5	-2.4
Age:										
18-24	-6.6	-3.0	-4.5	-4.6	-2.1	-1.7	-4.7	0.7	-6.2	-5.0
25-34	-3.8	-1.2	-2.3	1.3	-0.1	-1.2	3.0	0.9	-0.4	3.3
35-44	0.7	-1.1	1.2	-1.0	0.4	2.2	1.5	-0.5	1.8	1.0
45-54	6.3	4.6	4.0	4.3	3.6	5.4	4.6	0.3	3.5	3.7
55-64	6.5	2.4	4.9	2.0	-0.4	1.2	0.5	-0.7	4.2	2.6
65-74	1.6	0.5	0.1	0.3	-1.1	-3.8	-2.8	-1.1	0.0	-3.1
75-96	1.3	-0.2	-0.6	-3.4	-0.3	-5.6	-9.1	-1.5	-2.5	-10.8
Ethnic-Race:										
White, Other Origin	-0.1	0.2	-0.1	-0.9	-0.3	0.7	-0.4	0.1	-0.3	0.2
White, British Isles	-0.4	-1.6	2.1	3.9	-0.6	3.3	5.6	1.3	1.6	2.6
White, W. Europe	-0.2	-0.8	0.8	1.1	-0.3	0.5	3.6	-1.4	-0.0	1.7
White, E. Europe	14.8	13.8	11.1	12.3	4.4	3.8	19.2	-0.3	15.3	4.1
Hispanic	-1.8	-1.7	-4.2	-1.6	-0.1	-4.9	-11.2	2.6	-1.1	-6.4
Black (ex. Hispanic)	-2.7	-1.5	-3.6	-2.6	0.4	-6.4	-7.2	-1.0	-5.5	-3.0
Other Races	7.5	4.9	0.8	-1.3	3.7	0.9	-4.6	-1.6	9.1	0.9
White (unknown origin)	6.7	-3.7	-2.4	-2.5	0.8	-1.8	-2.6	-2.1	-2.0	-6.1
Sex:										
Male	-1.6	0.1	-0.3	-1.5	0.3	-1.2	-0.7	-0.1	-4.4	0.3
Female	1.4	-0.1	0.3	1.3	-0.2	1.1	0.6	0.1	3.8	-0.3
Education:										
Grade school	-7.8	-3.0	-4.8	-11.4	-3.3	-6.5	-19.6	-2.9	-8.8	-18.0
Some high school	-4.3	-2.9	-4.1	-11.5	-1.2	-5.7	-14.7	-1.5	-8.0	-11.1
High school graduate	-1.6	-3.0	-1.2	-2.6	-1.6	-3.3	-3.1	-0.7	-3.7	-2.1
Some college	2.1	1.5	0.2	6.0	0.5	0.4	5.8	1.0	1.7	5.9
College graduate	6.4	6.4	7.7	9.6	4.7	13.2	17.2	1.6	15.5	13.4
Graduate school	11.3	11.0	10.1	18.8	6.8	15.4	27.3	5.2	17.7	19.9

can be accounted for by associated background variables. Both younger and older individuals are likely to spend more time viewing television than average, but much of the difference in the higher rate for older individuals is attributable to other factors. Males are slightly less likely to watch more hours than females, but this difference essentially disappears if other variables are held equal. Blacks are markedly more likely than the average to watch television, while "other" races are markedly less likely than average. About two-thirds of the greater than average rate for black viewing seems due to race *per se*.

Jazz

Watching jazz on television is more frequent among the better educated and more affluent. These differences are only slightly reduced after adjustment for other background factors. Those aged 25-34 are most likely to watch jazz on television but, when other background factors are controlled, the 55-64 year group emerge as the most frequent viewers of jazz on television. Among all ethnic-racial groups, blacks are most likely to watch jazz on television, a rate which is slightly increased when other factors are held equal.

Those with higher incomes are only slightly more likely to listen to jazz on the radio. The rate of listening to jazz on the radio increases fairly strongly with rising education levels, but drops with rising age levels. Women are slightly less likely to listen to jazz on the radio than are males. The rate of listening to jazz on the radio for blacks is notably the highest.

Listening to jazz on recordings increases with higher income and education levels, but gradually decreases, however, with age. Women and men do not significantly differ in rate of listening to jazz recordings. As is the case with television and radio, blacks are also the group most likely to listen to jazz recordings.

Classical Music

Watching classical music on television is more prevalent among those in higher income brackets, but most of the differences are attributable to other factors, most likely education. Younger groups are least likely to watch classical music on television; those aged 45-64 are most likely to watch. Gender differences in this case are small, with men slightly lower than women. Blacks are least likely to watch classical music on television. The rate of watching rises strongly with educational level.

Both increased levels of income and education are associated with greater likelihood of listening to classical music on the radio, but much of the strength of income as a predictor is due to other associated factors; again, education is the probably explanatory variable. The young and the old are less likely to listen to this music on the radio, but the low rate for the elderly (over 65) is due largely to other factors.

Just as in radio and television consumption, listening to classical music recordings has a strong positive relationship to education and, to a lesser extent, to income. Again, in contrast to education, the strength of income as a predictor is largely attributable to other associated factors. Classical recordings are most popular among those aged 25-64, but, other with factors held equal, these recordings gain increased popularity with age until there is a drop among those aged 65-74. Males are slightly less likely than females to listen to classical recordings. Whites of East European descent are notably more likely to listen to classical recordings, while blacks have a markedly lower rate. However, if the influence of other background factors is removed, blacks are the only ethnic-racial group that markedly diverges from the national average.

Opera

Watching opera on television becomes more common in groups with higher income, but much of this difference is due to other related factors. It is also more frequent as age increases, peaking with those aged 45-64. Moreover, the effect of age is diminished by other factors--those over 45 are much more likely to watch opera on television than those younger if adjustments are made for other background variables. "Other" races are also more likely to watch opera on television. Females are only slightly more likely to watch than males. Education is the strongest of these predictors for watching opera on television, even though this relationship is somewhat suppressed after adjustment for other factors. In this case, age, income and education together explain most of the variation.

Listening to opera on the radio is noticeably more common among those with incomes greater than $50,000, but most of this difference is due to other factors such as age and education. It is also more frequent among persons over 44 years old, and adults with higher education levels.

Those with higher incomes and educational levels are more likely to listen to classical music recordings, but once again the differences by income are largely attributable to other factors. The rate of listening to these recordings increases until the ages of 55-64, and then drops sharply.

Musicals

Watching musicals on television is considerably more common among those with higher incomes (about half of the variation is due to other factors) and among those with higher education levels. The youngest and oldest groups are least likely to watch, while those aged 45-54 are most likely to watch. When other factors are controlled those over 45 years old are more likely than younger groups to watch musicals on television. Females are slightly more likely to watch than are males, particularly when other factors are held equal. "Other" races watch at a much lower rate than the average when other background factors are taken into consideration.

Few groups deviate much from the average in terms of listening to musicals on the radio. Those earning over $50,000, those aged 45-54. and "other" races are the exceptions--each of these groups is clearly more likely than the average to listen to musicals on the radio. (The greater propensity does not hold for "other" races after adjustments for the impact of other factors.) Moreover, higher levels of education are clearly associated with higher rates of listening.

Those in higher income brackets or educational levels are more likely to listen to musicals on recordings. The likelihood of listening to recordings also rises with age, but begins to drop among those aged 55-64. Hispanics and blacks (as well as "other" races if other factors are held equal) are the ethnic-racial groups least likely to listen to musicals on recordings. Females are slightly more likely than males to listen to recordings of musicals, but gender is not a major factor here.

Plays

Watching plays on television is more common among those with higher income and education levels. Those under 24 years and those over 65 years are least likely to watch. Hispanics, blacks and "other" races are less--likely than the average to watch. Males are slightly less likely than females to watch television plays.

The rates for listening to plays on radio exhibit little variation across the background variables. Those earning $50,000 or more, the older aged groups, "other" races and whites of unknown origin, are less likely than the average to listen to plays on the radio. The strongest association is with education--those with higher education are more likely to listen to plays on the radio.

Ballet

Those with higher income or education levels are more likely to watch ballet on television. Watching also rises with age, peaking with those aged 55-64. "Other" races are more likely than the average to watch, while blacks are the least likely. Women are markedly more likely than men to watch ballet on television. These trends are maintained after adjustment for other factors.

Art

Watching art-related programs on television is more common among those with higher income and educational levels. The viewing of these programs has a curvilinear relation with age, peaking with those aged 45-54. Hispanics and whites of unknown origins are the least likely to watch these programs.

Table 6.4a: MCA-Adjusted Arts Participation Via Media and Average Number of Daily TV Hours by Background Factors: Percentage of Respondents Above or Below the Grand Mean

	Jazz on TV	Jazz on Radio	Jazz on Recording	Classical Music on TV	Classical Music on Radio	Classical Music on Recording	TV Hours
Grand Mean:	18.1%	18.3%	20.2%	24.74%	20.1%	22.2%	2.95%
Income:							
Under $5,000	-4.6	-2.0	-8.8	-4.1	-3.6	-5.6	.11
$5,000 - $9,999	-4.4	3.1	-4.0	-4.3	-1.5	-2.6	.13
$10,000 - $14,999	-2.0	-0.8	-1.3	0.1	-2.5	-0.5	.05
$15,000 - $24,999	1.2	0.2	1.6	2.1	0.6	1.1	.12
$25,000 - $49,999	2.5	-0.7	3.3	1.0	1.5	0.7	-.19
$50,000 and over	4.2	-2.4	6.5	8.5	7.2	3.4	-.08
Not ascertained	4.0	1.0	1.8	1.3	2.0	4.5	-.25
Age:							
18-24	-2.3	2.9	0.4	-10.0	-7.7	-6.7	.28
25-34	2.0	6.0	7.2	-8.0	-1.2	-0.2	.07
35-44	-2.7	-1.1	-1.3	-1.0	2.8	1.0	-.30
45-54	1.5	-0.4	-0.4	10.7	3.5	5.0	-.08
55-64	4.2	-1.9	-2.5	11.0	4.6	5.9	-.04
65-74	-0.1	-7.3	-5.6	6.9	1.2	-1.0	-.09
75-96	-6.5	-12.6	-11.3	4.4	-0.2	-5.3	.11
Ethnic-Race:							
White, Other Origin	-1.8	-2.2	-2.0	-0.4	0.2	1.1	-.05
White, British Isles	0.9	-1.7	-3.1	0.4	-2.1	0.6	.07
White, W. Europe	-1.6	-2.8	-1.2	1.8	-0.3	-2.1	-.10
White, E. Europe	-2.9	-0.5	2.1	10.9	7.4	9.9	-.06
Hispanic	1.4	-0.3	1.6	3.3	4.5	-1.1	-.13
Black (ex. Hispanic)	11.1	17.6	17.2	-4.8	-1.1	-5.5	.48
Other Races	-0.9	0.3	-5.6	-0.2	-0.2	-0.2	-.27
White (unknown origin)	-2.0	-2.9	-12.7	-0.6	-8.1	-0.3	-.15
Sex:							
Male	1.6	2.4	0.3	-1.7	-1.7	-1.8	-.01
Female	-1.4	-2.1	-0.3	1.5	1.5	1.5	.01
Education:							
Grade school	-11.4	-7.1	-9.3	-18.6	-11.1	-13.1	-.10
Some high school	-6.9	-5.0	-4.5	-13.6	-7.3	-10.6	.53
High school graduate	-1.4	-2.1	-3.0	-2.8	-5.8	-6.0	.22
Some college	3.3	1.6	3.0	6.1	2.2	4.4	-.22
College graduate	6.6	7.1	8.8	16.5	17.4	18.4	-.45
Graduate school	16.1	14.2	15.2	23.8	26.2	28.6	-.60

Table 6.4b: MCA-Adjusted Arts Participation Via Media by Background Factors: Percentages of Respondents Above or Below the Grand Mean

	Opera on TV	Opera on Radio	Opera on Recording	Musical on TV	Musical on Radio	Musical on Recording	Play on TV	Play on Radio	Ballet on TV	Art Museums on TV
Grand Mean:	12.1%	7.2%	7.6%	20.6%	4.5%	8.5%	26.4%	3.8%	16.7%	23.1%
Income:										
Under $5,000	-3.7	-0.4	-2.1	-8.4	-0.2	-0.3	-6.8	0.8	-3.5	-7.3
$5,000 - $9,999	-2.6	-0.4	-1.4	-3.7	-1.0	-0.8	-2.7	0.8	-3.4	-3.8
$10,000 - $14,999	-0.9	0.8	0.6	-2.2	-0.0	-1.8	-2.7	-0.4	-3.0	-3.3
$15,000 - $24,999	1.2	-0.8	0.2	1.2	-0.4	-0.4	0.8	0.1	2.0	-0.2
$25,000 - $49,999	1.7	-0.6	-0.2	4.0	-0.7	1.2	3.0	0.4	2.8	6.9
$50,000 and over	5.2	2.2	0.4	8.2	3.8	2.7	17.1	-3.7	4.1	12.9
Not ascertained	-0.7	2.5	3.2	1.3	3.3	1.6	-1.5	-1.0	-0.1	-3.3
Age:										
18-24	-5.6	-5.0	-4.5	-3.6	-2.3	-1.6	-5.4	-0.6	-7.0	-4.8
25-34	-6.1	-2.9	-4.4	-1.3	-1.2	-3.7	-0.3	0.2	-3.6	0.3
35-44	-1.6	-1.6	-0.5	-3.6	-0.3	1.6	-0.7	-0.7	0.3	-2.5
45-54	6.9	5.6	4.7	4.6	3.8	6.4	4.7	1.3	4.2	4.0
55-64	7.9	4.2	6.1	3.6	0.6	2.6	2.5	0.1	6.5	4.9
65-74	4.0	3.1	2.8	3.5	0.2	-1.6	1.9	0.0	4.4	2.1
75-96	5.9	3.8	3.8	1.8	1.7	-2.7	-0.4	-0.3	3.5	-3.5
Ethnic-Race:										
White, Other Origin	0.0	0.5	0.0	-0.9	-0.2	0.8	-0.6	0.2	-0.2	-0.3
White, British Isles	-3.0	-2.8	0.4	1.1	-1.4	1.4	2.3	1.3	-1.9	-0.6
White, W. Europe	-0.9	-0.8	0.4	0.8	-0.3	0.4	3.2	-1.1	0.1	1.2
White, E. Europe	11.4	11.8	8.8	9.0	3.5	2.0	16.1	-0.5	12.3	2.0
Hispanic	1.3	-0.6	-2.6	1.6	1.0	-2.9	-5.9	2.6	3.4	0.1
Black (ex. Hispanic)	-0.2	-1.1	-1.6	0.1	1.2	-4.5	-2.6	-1.7	-3.0	1.5
Other Races	5.6	1.1	-2.4	-6.6	1.4	-4.2	-12.4	-2.2	3.4	-3.7
White (unknown origin)	-3.7	-2.1	0.3	2.8	1.5	1.0	2.5	-1.3	2.4	-2.1
Sex:										
Male	-1.6	-0.7	-0.4	-1.9	0.1	-2.1	-2.0	-0.3	-4.8	0.0
Female	1.4	0.6	0.4	1.7	-0.1	1.9	1.8	0.3	4.2	0.0
Education:										
Grade school	-11.8	-4.2	-6.1	-11.4	-4.3	-4.7	-16.9	-3.0	-9.2	-16.7
Some high school	-5.5	-2.7	-4.3	-10.8	-1.3	-5.1	-12.6	-1.6	-8.0	-9.8
High school graduate	-1.1	-2.4	-1.3	-2.2	-1.2	-3.2	-2.8	-0.5	-3.5	-1.7
Some college	4.4	2.5	1.1	7.1	1.0	0.3	5.9	1.1	2.4	6.3
College graduate	7.0	5.7	7.8	8.2	4.4	11.9	14.3	1.4	15.2	11.1
Graduate school	10.3	8.1	8.5	14.9	5.5	12.9	22.6	4.6	16.0	16.0

4) DIMENSIONS OF ART PARTICIPATION VIA THE MASS MEDIA

The analysis above reveals that certain sub-groups (e.g., ethnic groups) are more likely to follow a particular art form through all three media (television, radio and recordings). Either of two assumptions can be drawn from this finding. First, it is reasonable to assume that it is the same people within the sub-group who are following their favorite arts through all possible media. However, it is equally plausible that people may have a preferred (or more readily available) medium through which they participate in their favorite art forms. A factor analysis of participation in the arts via the three mass media indicates the ways in which participation in the various art forms through each of three mass media forms tend to be grouped.

The results of the factor analysis are shown in Table 6.5 and reveal four clusters. The composition of these clusters consisting of strongly correlated media variables will be discussed below. In addition, the first and second clusters are graphically displayed in Diagram 6.1. The first cluster (or factor) lies along the horizontal axis, and is composed of those variables grouped farthest to the right on this axis with strong intercorrelations. The second cluster is similarly identifiable along the vertical axis.

In Table 6.5, the first cluster consists of those who tend to pursue a range of arts through television. This cluster shows a relatively strong association among watching art exhibits, plays, ballet, opera, musicals, and classical music on television. (These are indicated with an asterisk.) Television viewing of jazz performances is weakly associated with this cluster. It should be noted that the number of hours spent watching television shows almost no relationship to this cluster focusing on television viewing of the arts.

A second cluster reveals the participation of jazz enthusiasts who tend to follow jazz performances on all three media, television, radio, and recordings.

A third cluster identifies a group that primarily follows the arts through radio broadcasts. This group listens to operas, musicals, and classical music on the radio as well as to recordings of operas.

A fourth cluster consists mostly of listeners to recordings of opera, classical music and musicals and to classical music on the radio. This cluster focuses primarily on those who follow the arts through recordings.

Factor analysis suggests that individuals who follow the arts through the media do indeed fall into certain patterns. Moreover, these patterns seem to be centered more on the particular types of media than on a particular art form through all possible media. Each of the media has a cluster associated with it. Those who participate in one art form through television are more likely to participate in the whole range of arts on television rather than through the other media. Similarly, though for a narrower range of art forms (opera, classical music, and musicals), those who listen to one of these arts on either the radio or recordings are more likely to listen to the other two music forms on the same, rather than different, media. Thus, those who participate in opera, classical music and musicals through the media tend to concentrate on one medium.

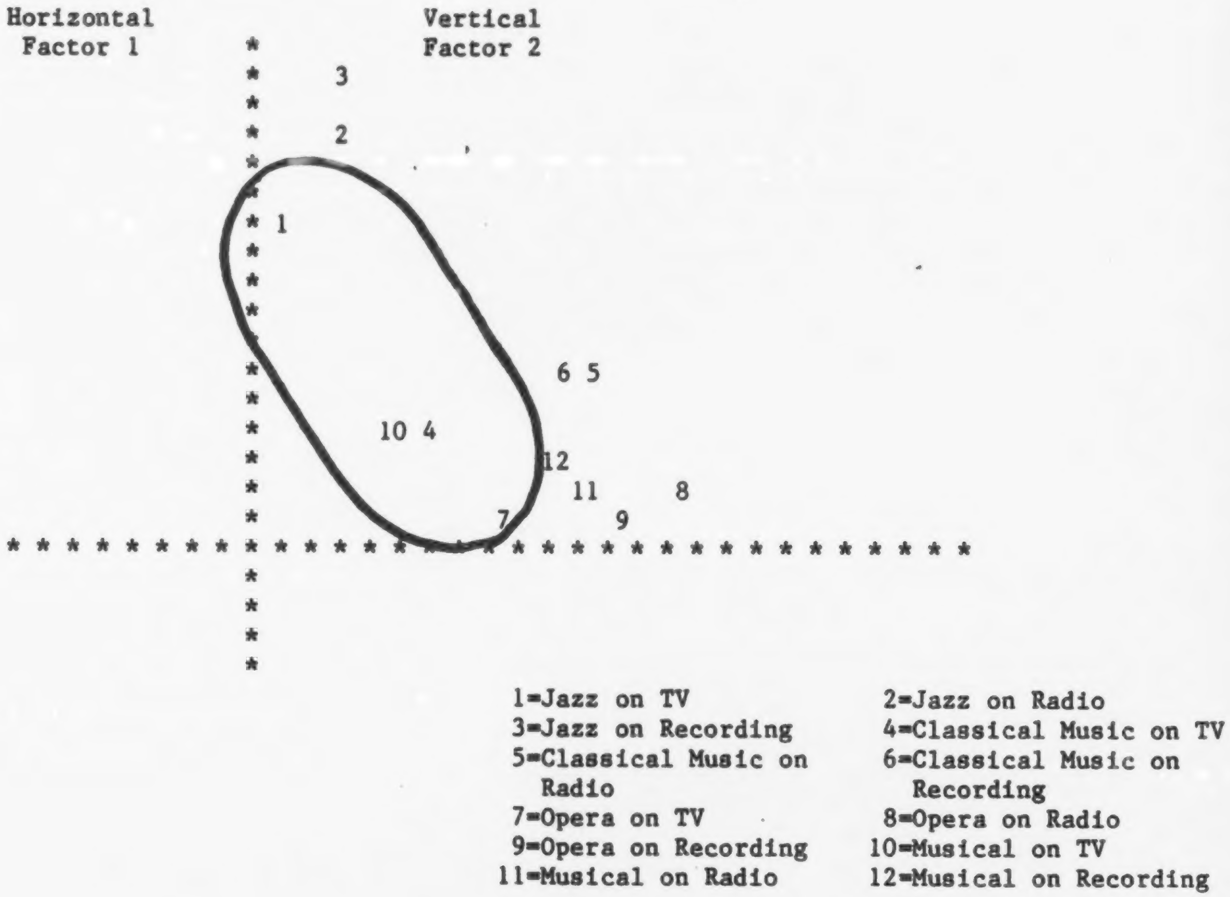
The major exception to the relative dominance of medium over art form is jazz where clearly the art form is more important than a particular medium. Jazz enthusiasts tend to use all three media to pursue this art form. Other exceptions (but with weaker associations) relate to overlap between recordings and radio: those who use radio for several arts tend also to listen to opera recordings, and people who use recordings also listen to classical music on the radio.

Table 6.5: Factor Analysis of Media Use Variables: Varimax Rotated Factor Matrix

	Factor 1	Factor 2	Factor 3	Factor 4
TV Hours	.037	-.035	-.067	-.184
Jazz on TV	*.355	*.526	.052	-.037
Jazz on Radio	.106	*.664	.142	.103
Jazz on Recording	.123	*.758	.022	.204
Classical Music on TV	*.652	.118	.148	.226
Classical Music on Radio	.335	.232	*.358	*.365
Classical Music on Recording	.396	.199	.123	*.662
Opera on TV	*.553	-.003	.298	.127
Opera on Radio	.164	.049	*.737	.239
Opera on Recording	.291	-.013	*.352	*.443
Musical on TV	*.600	.115	.167	.010
Musical on Radio	.170	.077	*.507	.165
Musical on Recording	.287	.061	.210	*.403
Play on TV	*.554	.234	.100	.073
Play on Radio	.151	.130	.201	.091
Ballet on TV	*.578	.110	.161	.178
Art Museums on TV	*.523	.218	.078	.082

* Indicates variables within each factor

Diagram 6.1: Plot of Rotated Factors of Arts Participation via the Media



5) BACKGROUND DIFFERENCES: ARTS BY MEDIUM AND MEDIA BY ART FORM

The factor analysis demonstrates that arts participation via the media tends to be patterned--usually more strongly organized around media than around a particular art form. The next step is to examine the social characteristics of respondents who are involved in sets of media and arts combinations. This analysis covers both types of patterns, those organized by media and those organized by art form.

Arts through Each Medium

Organization of arts by media will be treated first. Table 6.6 shows the relationship of ten background factors to the average number of art forms followed via a particular medium. For example, the television index measures whether a respondent has watched television performances of either jazz, classical music, operas, musicals, plays, ballets, or art museum presentations in the preceding 12 months. For example, respondents from households earning over $50,000 watch art presentations more than the average, 2.6 (the grand mean of 1.4 plus the deviation of +1.2). It should be noted that the indices are based on varying numbers of art forms since not all forms are carried by all media. Table 6.7 presents the same associations between participation via the media and each background factor, adjusted for the effects of all other background variables.

Index of Participation in All Art Forms Through All the Media

The college educated, professionals, and higher income persons tend to follow more art forms through more types of media. In contrast, laborers, operatives, persons without a high school diploma, persons over 75 years of age, persons with household incomes under $5,000, and people with several

Table 6.6: Indices of "Core" Arts Participation Across Media by Selected Background Factors: Deviation Above or Below the Average Index Score

	All Media	TV	Radio	Recordings
Average Index Score:*	2.6	1.4	0.5	0.6
Income:				
Under $5,000	-1.0	-0.6	-0.1	-0.3
$5,000 - $9,999	-0.8	-0.5	-0.1	-0.2
$10,000 - $14,999	-0.5	-0.3	-0.1	-0.1
$15,000 - $24,999	0.2	0.1	0.0	0.0
$25,000 - $49,999	0.6	0.4	0.1	0.2
$50,000 and over	2.0	1.2	0.3	0.4
Not applicable	0.3	0.1	0.1	0.1
SMSA:				
Central city of SMSA	0.6	0.3	0.2	0.1
SMSA, not central city	0.2	0.1	0.0	0.1
Not in SMSA	-0.8	-0.4	-0.2	-0.2
Age:				
18 - 24 years	-0.4	-0.4	0.0	-0.1
25 - 34 years	0.2	0.1	0.1	0.1
35 - 44 years	0.1	0.0	0.0	0.0
45 - 54 years	0.5	0.3	0.1	0.1
55 - 64 years	0.3	0.3	0.0	0.1
65 - 74 years	-0.4	-0.1	-0.2	-0.2
75 - 96 years	-1.1	-0.5	-0.3	-0.4
Marital Status:				
Married	-0.1	0.0	0.0	0.0
Widowed	-0.5	-0.1	-0.2	-0.2
Divorced	0.8	0.4	0.2	0.2
Separated	-0.5	-0.4	0.0	-0.1
Never married	0.2	-0.1	0.2	0.2
Ethnic-Race:				
White, other origin	-0.1	0.0	0.0	0.0
White, British Isles	0.3	0.2	0.0	0.1
White, W. Europe	0.0	0.1	-0.1	0.0
White, E. Europe	1.4	0.8	0.3	0.3
Hispanic	-0.4	-0.2	0.0	-0.2
Black (ex. Hispanic)	-0.1	-0.2	0.1	0.0
Other races	0.5	0.2	0.2	0.1
White, unknown origin	-0.9	-0.3	-0.3	-0.3
Sex:				
Male	-0.1	-0.1	0.0	0.0
Female	0.1	0.1	0.0	0.0
Education:				
Grade School	-1.7	-0.9	-0.3	-0.4
Attended High School	-1.2	-0.7	-0.2	-0.3
High School Graduate	-0.5	-0.2	-0.1	-0.1
Attended College	0.5	0.3	0.1	0.1
College Graduate	1.8	0.8	0.4	0.5
Attended Grad School	2.9	1.4	0.7	0.8
Work Hours:				
None	-0.2	0.0	-0.1	-0.1
1 to 29	0.2	0.1	0.1	0.1
30 to 39	0.1	0.0	0.0	0.1
40 hrs.	0.0	0.0	0.0	0.0
41 to 49	0.1	0.0	0.0	0.1
50 or more	0.4	0.1	0.1	0.1
Occupation:				
Professional	2.0	1.0	0.5	0.6
Managerial	0.6	0.3	0.2	0.2
Sales, Clerical	0.1	0.1	0.0	0.1
Craftsman	-0.5	-0.3	-0.1	-0.1
Operatives	-1.0	-0.6	-0.1	-0.2
Laborers	-1.1	-0.6	-0.3	-0.3
Service Workers	-0.4	-0.2	-0.1	-0.1
Not Working	0.0	0.0	0.1	0.0
Keeping House	-0.3	0.0	-0.1	-0.1
Student	0.3	-0.1	0.1	0.2
Retired	-0.6	-0.2	-0.2	-0.2
Presence of Children				
No children	0.1	0.0	0.0	0.0
One 6-11	-0.1	0.0	-0.1	-0.1
Two+ 6-11	-0.2	-0.1	0.0	-0.1
One under 6	-0.2	-0.1	0.0	0.0
One 6-11, One under 6	-0.4	-0.1	-0.2	-0.1
One under 6, Two+ 6-11	0.4	0.3	0.1	0.0
Two+ under 6	0.0	0.0	0.0	0.0
One 6-11, Two+ unde 6	-0.5	-0.3	-0.1	-0.1
Two+ 6-11, Two+ undr 6	-1.0	-0.5	-0.3	-0.2

* Average Index Sore is the average number of media used to pursue interest in various art forms.

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children and infants are groups which participate in the fewest arts through the fewest mass media.

In general, the adjustment for the impact of other factors changes little in terms of the predicted participation for the above groups. The rates for operatives and laborers are, however, somewhat higher if the suppressing influence of other factors (e.g., education and income) is statistically removed. On the other hand, the association between income and participation is weakened when other factors, such as education, are controlled.

Index of Television Participation in the Arts

Persons who are better educated, wealthier and in professional occupations are also the most likely to follow a variety of art forms on television.

When other background factors are held constant, the higher rates of television participation for better educated persons is basically unchanged, but the rates for professionals and higher income persons are substantially reduced. Thus, education is a strong explanatory factor, while the influence of income and professional status is strongly dependent upon the impact of associated factors, such as educational achievement.

Index of Radio Participation in the Arts

Professionals, college graduates, members of "other" races, residents of central cities, and those in households earning $50,000 and over tend to use radio to participate in a broader range of the arts. In contrast, those living outside of SMSA's, those over 65 years of age, widows, whites of unknown national origin, those without a high school diploma, laborers,

Table 6.7: MCA-Adjusted Indices of "Core" Arts Participation Across Media by Selected Background Factors: Deviation Above and Below the Average Index Score

	All Media	TV	Radio	Recordings
Average Index Score:*	2.6	1.4	0.5	0.6
Income:				
Under $5,000	-0.6	-0.4	-0.1	-0.2
$5,000 - $9,999	-0.3	-0.3	0.0	-0.1
$10,000 - $14,999	-0.2	-0.2	0.0	0.0
$15,000 - $24,999	0.1	0.1	0.0	0.0
$25,000 - $49,999	0.3	0.2	0.0	0.1
$50,000 and over	0.8	0.6	0.1	0.1
Not applicable	0.1	0.0	0.1	0.1
SMSA:				
Central city of SMSA	0.5	0.3	0.2	0.1
SMSA, not central city	0.0	0.0	0.0	0.0
Not in SMSA	-0.5	-0.2	-0.1	-0.1
Age:				
18 - 24 years	-0.6	-0.4	-0.1	-0.1
25 - 34 years	-0.2	-0.2	0.0	0.0
35 - 44 years	-0.1	-0.1	0.0	0.0
45 - 54 years	0.6	0.4	0.1	0.2
55 - 64 years	0.6	0.4	0.1	0.1
65 - 74 years	0.2	0.2	0.0	-0.1
75 - 96 years	-0.2	0.0	-0.1	-0.2
Marital Status:				
Married	-0.2	-0.1	-0.1	-0.1
Widowed	0.1	0.1	0.0	0.0
Divorced	0.6	0.4	0.1	0.2
Separated	-0.1	-0.1	0.0	0.0
Never married	0.4	0.1	0.1	0.2
Ethnic-Race:				
White, other origin	-0.1	0.0	0.0	0.0
White, British Isles	-0.1	0.0	-0.1	0.0
White, W. Europe	-0.1	0.0	-0.1	0.0
White, E. Europe	1.1	0.6	0.2	0.2
Hispanic	0.1	0.1	0.1	0.0
Black (ex. Hispanic)	0.2	0.0	0.1	0.1
Other races	-0.3	-0.1	0.0	-0.1
White, unknown origin	-0.3	0.0	-0.1	-0.1
Sex:				
Male	-0.1	-0.1	0.0	0.0
Female	0.1	0.1	0.0	0.0
Education:				
Grade School	-1.6	-1.0	-0.3	-0.3
Attended High School	-1.1	-0.7	-0.2	-0.3
High School Graduate	-0.4	-0.2	-0.1	-0.1
Attended College	0.5	0.4	0.1	0.1
College Graduate	1.6	0.8	0.4	0.5
Attended Grad School	2.4	1.2	0.6	0.7
Work Hours:				
None	0.1	0.1	0.0	0.0
1 to 29	0.2	0.1	0.1	0.1
30 to 39	0.0	-0.1	0.0	0.0
40 hrs.	-0.2	-0.1	0.0	-0.1
41 to 49	0.0	0.0	0.1	0.0
50 or more	0.0	-0.1	0.1	0.0
Occupation:				
Professional	0.5	0.2	0.1	0.1
Managerial	-0.2	-0.1	-0.1	-0.1
Sales, Clerical	-0.2	-0.1	-0.1	0.0
Craftsmen	-0.1	-0.1	0.0	0.0
Operatives	-0.3	-0.2	0.0	-0.1
Laborers	-0.3	-0.1	-0.1	-0.1
Service Workers	-0.2	-0.1	-0.1	-0.1
Not Working	0.5	0.2	0.2	0.0
Keeping House	0.1	0.0	0.0	0.0
Student	0.0	-0.1	0.0	0.1
Retired	0.1	0.1	0.0	0.0
Presence of Children:				
No children	0.0	0.0	0.0	0.0
One 6-11	0.1	0.1	0.0	0.0
Two+, 6-11	0.0	0.1	0.0	0.0
One under 6	0.0	0.0	0.0	0.0
One 6-11, One under 6	-0.2	0.1	-0.2	-0.1
One under 6, Two+ 6-11	0.6	0.5	0.1	0.0
Two+ under 6	0.0	0.0	0.0	-0.1
One 6-11, Two+ under 6	0.0	0.0	0.1	0.0
Two+ 6-11, Two+ under 6	-0.6	-0.2	-0.2	-0.1

* Average Index Score is the average number of media used to pursue interest in various art forms.

those having one infant and one child, those having two or more of each are markedly less likely to participate in a range of arts through radio.

The below average rates for older people, widows, whites of unknown national origin, and laborers are largely attributable to the influence of other factors such as differential education and occupational status. However, the low rates for the less educated and those with each one infant and one child or two or more of each tend to be independent of the effects of the other background factors.

Index of Arts Participation through Recordings

People of some backgrounds are more likely to use records and tapes to listen to a broader range of music (jazz, classical music, opera, or musicals). In particular, better educated and wealthier individuals tend to listen to a variety of music through recordings. Ethnic, age, occupational categories a well as number of children also show sharp differences in terms of arts participation through recordings.

When other factors are equalized, the differences among income and age groups become more modest--a change suggesting that other background factors play an important part in explaining differences in listening patterns within these groups. The strong influence of education is, however, independent of the impact of the other background factors; in fact education may explain some of the differences within other variables before adjustment.

In sum, certain social characteristics are associated with following a greater variety of art forms through each of the media. Whether via television, radio, or recordings, college educated persons, higher level white collar workers, and divorced persons follow more types of art forms. Education is generally the strongest explanatory factor; education differences are maintained after adjustment for other factors. In other cases (e.g., income and occupation) the decrease in variation after adjustment may be due to removing the impact of education, which is closely associated with those variables.

The Media and Each Art Form

The second line of analysis of multiple arts-media use is to focus on each art form, examining the media used to follow it. Table 6.8 shows the relationship of selected background factors to the average number of media (television, radio, and recordings) used by respondents, to pursue their interest in a specific art form. For example, members of households earning over $50,000 use an average of 0.8 (0.6 + 0.2) media to follow jazz compared to an average of 0.5 media for members of households earning less than $5,000. Table 6.9 presents the same relationships after adjusting for the influence of other factors. The major predictors and explanatory factors will be highlighted below.

(Ballet and art museums are not treated in this analysis because they are carried by only one medium.)

Index of Media Usage for Jazz

People of certain backgrounds tend to follow jazz through multiple media - television, radio and recordings. Better educated persons, students and blacks are especially likely to pursue jazz through several media while older people, widows and those with several children are noticeably less likely than average to do so.

The higher rates for high income people and students and the lower than average rates for widows and the elderly are partly attributable to other factors. However, even after adjustment for other factors, sharp distinctions by age, marital status, ethnic background and number of children are maintained.

Table 6.8: Indices of Media Exposure for Each Art Form by Selected Background Factors: Deviation Above or Below the Average Index Score

	Jazz	Classical Music	Opera	Plays	Musicals
Average Index Score:*	0.6	0.7	0.3	0.3	0.3
Income:					
Under $5,000	-0.1	-0.3	-0.1	-0.1	-0.1
$5,000 - $9,999	-0.1	-0.2	-0.1	-0.1	-0.1
$10,000 - $14,999	-0.1	-0.1	-0.1	-0.1	-0.1
$15,000 - $24,999	0.1	0.1	0.0	0.0	0.0
$25,000 - $49,999	0.1	0.2	0.1	0.1	0.1
$50,000 and over	0.2	0.6	0.3	0.3	0.4
Not applicable	0.0	0.1	0.1	0.0	0.1
SMSA:					
Central city of SMSA	0.2	0.1	0.1	0.1	0.1
SMSA, not central city	0.0	0.1	0.1	0.0	0.0
Not in SMSA	-0.2	-0.2	-0.1	-0.1	-0.1
Age:					
18 - 24 years	0.2	-0.2	-0.1	0.0	-0.1
25 - 34 years	0.2	0.0	-0.1	0.0	0.0
35 - 44 years	-0.1	0.1	0.0	0.0	0.0
45 - 54 years	0.0	0.2	0.2	0.1	0.1
55 - 64 years	-0.1	0.2	0.1	0.0	0.0
65 - 74 years	-0.3	-0.1	0.0	0.0	-0.1
75 - 96 years	-0.5	-0.3	0.0	-0.1	-0.1
Marital Status:					
Married	-0.1	0.0	0.0	0.0	0.0
Widowed	-0.3	-0.1	0.0	-0.1	0.0
Divorced	0.2	0.2	0.1	0.1	0.1
Separated	0.3	-0.1	-0.1	-0.1	-0.2
Never married	0.3	0.1	-0.1	0.0	0.0
Ethnic-Race:					
White, other origin	-0.1	0.0	0.0	0.0	0.0
White, British Isles	0.0	0.1	0.0	0.1	0.1
White, W. Europe	-0.1	0.0	0.0	0.0	0.0
White, E. Europe	0.0	0.4	0.4	0.2	0.2
Hispanic	0.0	-0.1	-0.1	-0.1	-0.1
Black (ex. Hispanic)	0.4	-0.2	-0.1	-0.1	-0.1
Other races	0.1	0.2	0.1	-0.1	0.0
White, unknown origin	-0.3	-0.3	-0.1	-0.1	0.0
Sex:					
Male	0.1	0.0	0.0	0.0	0.0
Female	-0.1	0.0	0.0	0.0	0.0
Education:					
Grade School	-0.4	-0.4	-0.2	-0.2	-0.2
Attended High School	-0.2	-0.3	-0.1	-0.2	-0.2
High School Graduate	-0.1	-0.2	-0.1	0.0	-0.1
Attended College	0.1	0.1	0.0	0.1	0.1
College Graduate	0.3	0.6	0.2	0.2	0.3
Attended Grad School	0.5	0.9	0.3	0.3	0.4
Work Hours:					
None	-0.1	-0.1	0.0	0.0	0.0
1 to 29	0.1	0.1	0.0	0.0	0.0
30 to 39	0.0	0.0	0.0	0.0	0.0
40 hrs.	0.1	0.0	0.0	0.0	0.0
41 to 49	0.1	0.0	0.0	0.0	0.0
50 or more	0.1	0.2	0.0	0.0	0.0
Occupation:					
Professional	0.3	0.6	0.3	0.2	0.3
Managerial	0.2	0.2	0.0	0.1	0.1
Sales, Clerical	0.1	0.0	0.0	0.0	0.0
Craftsmen	-0.1	-0.2	-0.1	-0.1	-0.1
Operatives	-0.1	-0.2	-0.1	-0.1	-0.2
Laborers	-0.1	-0.3	-0.1	-0.2	-0.2
Service Workers	0.0	-0.2	-0.1	-0.1	-0.1
Not Working	0.1	-0.1	0.0	0.0	0.0
Keeping House	-0.2	0.0	0.0	0.0	0.0
Student	0.5	-0.1	0.0	0.0	0.0
Retired	-0.3	-0.1	0.1	0.0	-0.1
Presence of Children:					
No children	0.0	0.0	0.0	0.0	0.0
One 6-11	-0.1	0.0	0.0	0.0	0.0
Two+ 6-11	0.0	0.0	-0.1	0.0	-0.1
One under 6	0.2	-0.2	-0.1	0.0	0.0
One 6-11, One under 6	-0.2	0.0	-0.1	0.0	0.0
One under 6, Two+ 6-11	0.1	0.1	0.1	0.0	0.0
Two+ under 6	0.0	0.0	-0.1	0.0	0.0
One 6-11, Two+ under 6	0.0	-0.2	-0.1	-0.1	0.0
Two + 6-11, Two+ under 6	-0.4	-0.1	-0.1	-0.1	-0.2

* Average Index Score is the average number of media used to pursue interest in a given art form.

Index of Media Usage for Classical Music

Better educated, wealthy persons and upper level white collar workers are more likely to follow classical music through multiple media (television, radio, recordings). There is also variation among people with different marital status, ethnicity and number of children. Age differences are slight with somewhat lower usage among the youngest and oldest groups.

However, much of the within-group variation among categories of income and ethnicity, and some of the variation by marital status and number of children can be attributed to other factors. Once again, the effect of education is independent of other background factors, and may, in fact, explain some of the variations before adjustment.

Index of Media Usage for Opera

Better educated persons, the affluent, whites and professionals tend more than others to follow opera through several media (television, radio and recordings).

The high rates for wealthier people and professions are largely attributable to other factors (see adjusted figure in Table 6.9), probably education which is closely associated with both income and occupation. In contrast, the influence of education is independent of the other background factors, indicating that it is a strong explanatory factor.

Index of Media Usage for Plays

Better educated, high income, professional groups, and whites tend to follow plays on several media (television and radio).

The differences among occupational and income groups, however, are noticeably diminished when the influence of the other background variables is statistically removed.

Index of Media Usage for Musicals and Operettas

College graduates, wealthier individuals, professionals, and whites are most likely to listen to musicals or operettas through more media (television, radio, recordings).

Adjustment for the impact of other factors suggests that the use of more types of media to follow musicals or operettas by high income individuals and professionals is explainable to a considerable extent by other factors such as education. The higher rates for college graduates are independent of the influence of the other background factors.

Throughout, we see that education is the best predictor of arts participation through several media. Income and occupation are also good predictors but their impact is weakened when other background factors are controlled. The association between multiple media participation and education is maintained after adjustment for other background variables indicating that education is a strong explanatory factor.

Table 6.9: MCA-Adjusted Indices of Media Exposure for Each Art Form by Selected Background Factors: Deviation Above or Below the Average Index Score

	Jazz	Classical Music	Opera	Plays	Musicals
Average Index Score:*	0.6	0.7	0.3	0.3	0.3
Income:					
Under $5,000	-0.2	-0.1	-0.1	-0.1	-0.1
$5,000 - $9,999	-0.1	-0.1	-0.1	0.0	-0.1
$10,000 - $14,999	-0.1	0.0	0.0	0.0	0.0
$15,000 - $24,999	0.0	0.0	0.0	0.0	0.0
$25,000 - $49,999	0.1	0.0	0.1	0.0	0.1
$50,000 and over	0.1	0.2	0.2	0.1	0.2
Not applicable	0.1	0.1	0.1	0.0	0.1
SMSA:					
Central city of SMSA	0.1	0.1	0.1	0.1	0.1
SMSA, not central city	0.0	0.0	0.0	0.0	0.0
Not in SMSA	-0.1	-0.1	-0.1	-0.1	-0.1
Age:					
18 - 24 years	0.0	-0.2	-0.1	-0.1	-0.1
25 - 34 years	0.2	-0.1	-0.1	0.0	-0.1
35 - 44 years	-0.1	0.0	0.0	0.0	0.0
45 - 54 years	0.0	0.2	0.1	0.1	0.1
55 - 64 years	0.0	0.2	0.1	0.0	0.1
65 - 74 years	-0.1	0.1	0.0	0.0	0.0
75 - 96 years	-0.3	0.0	0.0	0.0	0.0
Marital Status:					
Married	-0.1	0.0	0.0	0.0	0.0
Widowed	0.0	0.0	0.0	0.0	0.0
Divorced	0.2	0.2	0.1	0.0	0.1
Separated	0.2	-0.1	-0.1	0.0	-0.1
Never married	0.2	0.1	0.0	0.1	0.0
Ethnic-Race:					
White, other origin	-0.1	0.0	0.0	0.0	0.0
White, British Isles	0.0	0.0	0.0	0.0	0.0
White, W. Europe	-0.1	0.0	0.0	0.0	0.0
White, E. Europe	0.0	0.3	0.2	0.2	0.2
Hispanic	0.1	0.1	0.0	0.0	0.0
Black (ex. Hispanic)	0.5	-0.1	0.0	-0.1	0.0
Other races	-0.1	0.0	-0.1	-0.2	-0.1
White, unknown origin	-0.2	-0.1	0.1	0.0	0.1
Sex:					
Male	0.1	-0.1	0.0	0.0	0.0
Female	0.0	0.1	0.0	0.0	0.0
Education:					
Grade School	-0.3	-0.4	-0.2	-0.2	-0.2
Attended High School	-0.2	-0.3	-0.2	-0.1	-0.2
High School Graduate	-0.1	-0.1	-0.1	0.0	-0.1
Attended College	0.1	0.1	0.1	0.1	0.1
College Graduate	0.2	0.5	0.3	0.2	0.3
Attended Grad School	0.5	0.8	0.3	0.3	0.3
Work Hours:					
None	0.0	0.1	0.0	0.0	0.0
1 to 29	0.1	0.1	0.0	0.0	0.0
30 to 39	0.0	0.0	0.0	0.0	0.0
40 hrs.	0.0	-0.1	-0.1	0.0	-0.1
41 to 49	0.0	0.0	0.0	-0.1	0.0
50 or more	0.1	0.0	0.0	0.0	0.0
Occupation:					
Professional	0.0	0.1	0.1	0.1	0.1
Managerial	0.0	0.0	0.0	0.0	0.0
Sales, Clerical	0.0	-0.1	-0.1	0.0	-0.1
Craftsman	-0.1	0.0	0.0	0.0	0.0
Operatives	-0.1	0.0	-0.1	0.0	-0.1
Laborers	-0.1	0.0	-0.1	0.0	-0.1
Service Workers	0.0	-0.1	-0.1	0.0	-0.1
Not Working	0.2	0.0	0.1	0.0	0.1
Keeping House	0.1	0.0	0.0	0.0	0.0
Student	0.3	-0.1	-0.1	-0.1	-0.1
Retired	0.0	0.0	0.0	0.0	0.0
Presence of Children:					
No children	0.0	0.0	0.0	0.0	0.0
One 6-11	-0.1	0.1	0.0	0.0	0.0
Two+ 6-11	0.0	0.1	0.0	0.0	0.0
One under 6	0.1	-0.1	0.0	0.0	0.0
One 6-11, One under 6	-0.2	0.1	0.0	0.0	0.0
One under 6, Two+ 6-11	0.1	0.1	0.1	0.1	0.1
Two+ under 6	-0.1	0.0	0.1	0.0	0.1
One 6-11, Two+ under 6	0.0	-0.1	0.1	0.0	0.1
Two+ 6-11, Two+ under 6	-0.5	0.0	-0.1	0.0	-0.1

* Average Index Score is the average number of media used to pursue interest in various art forms.

6) ATTENDANCE AT ART EVENTS AND PARTICIPATION IN THE ARTS THROUGH THE MASS MEDIA

We are interested in determining whether people who participate in the arts through the mass media also are more likely to attend art events and to read literature. Table 6.10 presents the data relevant to this hypothesis: correlations between participation via attendance and via the mass media. The correlations are all positive except for a weak negative association between attendance and hours of watching television. Thus, using the media to follow any of the art forms is associated with attending performances of all of the arts; however, television viewing is weakly associated with a lesser tendency to attend art performances. In other words, watching television in general may be an alternative to attending arts events, but using the media to follow the arts tends to be supplementary to attending arts events. The stronger predictors of participation in each type of art performances will be discussed below. (Correlations of 0.20-0.29 will be referred to as moderate; correlations of 0.30-0.39 as substantial; correlations of 0.40-0.49 as strong.)

Jazz

Not surprisingly, the best predictors of attending jazz performances are those media variables involved in following jazz. Following jazz via records, via radio, and via television (in that order of strength) are substantial to moderate predictors.

Classical Music

Listening to classical music through recordings or radio are important predictors of attending classical music performances, while following music through television constitutes a moderate predictor of attendance. Parti-

Table 6.10: Correlations between Media Activities and Participation in the "Core" Arts

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Reading
TV Hours	-.040	-.122	-.044	-.094	-.101	-.074	-.131	-.096
Jazz on TV	.257	.166	.059	.148	.116	.104	.212	.200
Jazz on Radio	.323	.152	.049	.104	.142	.096	.206	.169
Jazz on Recording	.350	.143	.015	.152	.151	.131	.231	.210
Classical Music on TV	.108	.291	.155	.223	.166	.155	.277	.285
Classical Music on Radio	.157	.307	.146	.196	.201	.159	.301	.238
Classical Music on Recording	.178	.344	.153	.209	.202	.209	.338	.286
Opera on TV	.061	.261	.204	.159	.148	.113	.219	.184
Opera on Radio	.108	.270	.240	.131	.163	.137	.219	.144
Opera on Recording	.042	.251	.241	.145	.142	.163	.186	.157
Musical on TV	.110	.241	.124	.249	.180	.125	.224	.244
Musical on Radio	.050	.218	.167	.088	.119	.097	.217	.139
Musical on Recording	.109	.256	.165	.223	.179	.190	.289	.196
Play on TV	.143	.234	.134	.255	.234	.168	.284	.307
Play on Radio	.090	.137	.111	.077	.134	.091	.173	.103
Ballet on TV	.167	.271	.156	.217	.181	.229	.274	.222
Art Museums on TV	.135	.209	.105	.157	.128	.112	.297	.292

cipating in other arts via the media provides moderate aid in predicting attendance at classical music performances. (Jazz via any medium and plays through radio are exceptions to this.)

Opera

Among the media variables, the best predictors of opera attendance are following opera through recordings, radio, or television. However, these are of only moderate strength in predicting attendance.

Musicals

Attendance at musicals is best predicted by watching musicals, plays, classical music, or ballet on television as well as listening to recordings of musicals or classical music. Each of these media variables provides moderate improvement in predicting the attendance at musicals.

Plays

Almost none of the media variables is a useful predictor of attendance at plays. Listening to classical music recordings and watching plays on television are, however, moderate predictors of attendance. On the other hand, listening to plays on the radio has little predictive ability.

Ballet

The attendance of ballet performances is moderately related to listening to classical music recordings and to watching ballet on television.

Art Museums

Participating in almost all art forms through the media, including viewing art shows on television, are moderate predictors of visits to art museums and galleries. Furthermore, these visits have a substantial relationship to listening to classical music on recordings or radio.

Reading

Following any of the arts on television (except for opera and jazz) has a moderate to substantial association with reading literature. In addition, listening to classical music via radio on recordings or to jazz on records also relates moderately to reading literature.

7) INDICES OF MEDIA USE AND ARTS PARTICIPATION

Individually, each of the arts media variables has a positive relationship, often of moderate strength, with attending arts performances or reading literature. Nevertheless, another dimension of following the arts via the media may have opposing relationships with attendance or reading literature. The alternatives can be described as follows: if a person uses more media to participate, he/she may be less likely to attend live performances as the media become a substitute for attendance. Alternatively, if a person follows an art form through several media, he/she may be more likely to attend live performances as media participation may reflect or stimulate enthusiasm for the art form. In other words, do people use more forms of media to substitute for attendance at the arts, or do people who use more media channels attend more frequently?

The data in Table 6.11 suggest that people who follow the arts through several media are generally more likely to attend live art events, as well. Thus, the tendency is to supplement art attendance with media participation rather than to substitute the media for attendance. The only exception to this tendency are musicals; those who follow musicals through the three media (television, radio and recordings) are less likely to attend live musicals than those who use only two media. Apparently, there is some substitution of media participation for attendance. However, it should be noted that the attendance rate for those following musicals through all three media is about twice the average rate.

Finally, Table 6.12 presents these relationships after controlling for the effects of selected background factors. The extent to which the variation predicted by a media-art variable is the consequence of associated

Table 6.11: Participation In Each Art Activity by Number of Media Used to Follow the Same Art Form: Percentage of Respondents Above or Below the Grand Mean

	Attendance								
	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Arts Participation Index*	Reading
Grand Mean**	10.2%	12.1%	2.3%	19.3%	11.5%	4.2%	22.3%	.83	57.4%
Number of Media Used for Each Art:									
0	-7.4	-8.9	-1.5	-7.7	-5.1	-2.1	-7.0	-.62	-23.9
1	3.3	1.9	3.3	19.3	12.7	10.3	23.4	-.29	5.3
2	20.4	16.4	7.5	34.1	21.2	NA	NA	-.13	4.4
3	34.4	36.1	25.2	22.7	NA	NA	NA	.04	10.1
4	NA	NA	NA	NA	NA	NA	NA	.37	16.3
5	NA	NA	NA	NA	NA	NA	NA	.69	29.2
6	NA	NA	NA	NA	NA	NA	NA	.62	28.5
7	NA	NA	NA	NA	NA	NA	NA	.84	25.3
8	NA	NA	NA	NA	NA	NA	NA	1.16	30.2
9	NA	NA	NA	NA	NA	NA	NA	2.03	32.9
10	NA	NA	NA	NA	NA	NA	NA	1.73	33.4
11	NA	NA	NA	NA	NA	NA	NA	2.11	34.2
12	NA	NA	NA	NA	NA	NA	NA	2.03	32.4
13	NA	NA	NA	NA	NA	NA	NA	2.02	37.0
14	NA	NA	NA	NA	NA	NA	NA	2.98	29.4
15	NA	NA	NA	NA	NA	NA	NA	4.17	42.6
16	NA	NA	NA	NA	NA	NA	NA	4.17	42.6

* The participation index is an average of the number of types of arts performances attended in the previous 12 months. It covers attendance at jazz, classical music, opera, musical, plays, ballet or art museum activities, but excludes reading literature.

** These grand means differ slightly from those presented in Chapter 3 due to sampling error and the calculation of these means from a smaller sample.

background variables can be ascertained by comparing Tables 6.11 and 6.12. For example, if education were associated with both greater media usage and arts attendance, then the relationship between attendance and media usage might be explainable largely in terms of education.

A comparison of the two tables suggests that the predictive strength of media usage is somewhat diminished by holding background factors constant, but the general trends persist. (The only exception concerns musicals, as explained above: using two media is a better predictor of attendance than is using all three media.) We can conclude that typically attendance at the arts and reading literature is at least partially explainable by broader media usage to follow the arts.

Table 6.12: MCA-Adjusted Participation in Each Art Activity by Number of Media Used to Follow the Same Art Form: Percentage of Respondents Above or Below the Grand Mean

	Attendance								
	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Arts Participation Index*	Reading
Grand Mean**	10.2%	12.1%	2.3%	19.3%	11.5%	4.2%	22.3%	.83	57.4%
Number of Media Used for Each Art:									
0	-6.4	-6.9	-1.4	-5.5	-3.3	-1.6	-5.0	-.44	-18.0
1	2.4	1.1	2.8	14.1	8.0	8.2	16.5	-.25	4.7
2	16.9	12.8	6.5	24.0	15.9	NA	NA	-.17	2.0
3	31.5	28.6	23.7	12.8	NA	NA	NA	-.01	8.1
4	NA	NA	NA	NA	NA	NA	NA	.26	12.0
5	NA	NA	NA	NA	NA	NA	NA	.54	24.0
6	NA	NA	NA	NA	NA	NA	NA	.44	21.4
7	NA	NA	NA	NA	NA	NA	NA	.63	21.1
8	NA	NA	NA	NA	NA	NA	NA	.89	22.5
9	NA	NA	NA	NA	NA	NA	NA	1.63	22.3
10	NA	NA	NA	NA	NA	NA	NA	1.31	22.2
11	NA	NA	NA	NA	NA	NA	NA	1.65	22.6
12	NA	NA	NA	NA	NA	NA	NA	1.64	22.2
13	NA	NA	NA	NA	NA	NA	NA	1.38	25.2
14	NA	NA	NA	NA	NA	NA	NA	2.41	19.9
15	NA	NA	NA	NA	NA	NA	NA	4.02	38.5
16	NA	NA	NA	NA	NA	NA	NA	4.02	23.1

* The participation index is an average of the number of types of arts performances attended in the previous 12 months. It covers attendance at jazz, classical music, opera, musical, plays, ballet or art museum activities, but excludes reading literature.

** These grand means differ slightly from those presented in Chapter 3 due to sampling error and the calculation of these means from a smaller sample.

SUMMARY

Analysis of the responses to the questions about arts participation through the media has provided the following conclusions. The mass media reach a wider arts audience, typically twice as large, as do live performances; media reach approximately the same size audience as art museums and galleries for those interested in the visual arts. Except for jazz, television provides each of the art forms a far greater audience than do radio or recordings. Among the performing arts, plays via television capture the largest audiences, followed by classical music, art museums and jazz, via either television, radio, or recordings.

Higher levels of education and income are generally the strongest background predictors of using a mass medium to follow an art form.

A factor analysis indicates that patterns of art participation via the media tend to be more strongly organized around types of media than types of art. An exception is jazz where participation through one medium is strongly correlated with listening to it via the other two media.

People who use more types of media per art form or follow more arts per medium tend to share certain social characteristics: college education; higher income households; and professional occupation.

Finally, participation in an art form via one medium or multiple media tends to be positively associated with attendance at live performances and art museums and with reading literaure. To sum up, participation through the media is not an alternative to direct participation; rather the media tend to supplement participation through attendance at live art events.

Chapter 7

SOCIALIZATION INTO THE ARTS

In this study, we are also concerned with the ways in which people acquire an interest in the arts. It is reasonable to assume that parental encouragement as well as lessons and classes in childhood and adolescence form the basis for appreciation of and participation in the arts in adulthood. The survey included a series of questions relating to early socialization into the arts. The objective of the analysis is to examine the linkage between such socialization experiences and arts participation later in life.

This chapter presents the socialization questions and the tabulations of respondents' answers (Table 7.1), aggregated for the four months (February, August, November, and December) in which the questions were asked. The subsequent analysis was directed toward the following issues:

1) What proportion of the public recalls early socialization experiences related to the arts?

2) Do people of different backgrounds (e.g., race, gender) vary in their reported socialization experiences in the arts?

3) How well do these background factors predict socialization experiences?

4) Do arts socialization experiences tend to fall into patterns? For example, if respondents report having had acting lessons, are they also likely to have had other types of lessons?

5) Do people of different backgrounds tend to have experienced more art classes/lessons or introduction to a range of arts by household members? Are the variables that provide the best predictions also the major explanatory factors?

6) Are some of these socialization experiences better predictors than others of attending art events later in life? For example, is visiting an art museum as an adult associated with frequent visits to art museums with parents or with art

classes?

7) Is there an association between the range of socialization experiences and attending art events? If so, is a greater range of socialization experiences a good explanation for attendance at art events in adulthood?

1) SOCIALIZATION QUESTIONS AND RESPONSES

The socialization questions asked whether respondents had ever taken lessons or classes in music, the visual arts, acting or theater, ballet, creative writing, arts/crafts, art appreciation or history, or music appreciation. If the answer to any of these was affirmative, the respondent was then asked at what age he/she attended such classes. Unlike other questions in the survey, multiple responses were possible, but the analysis will use only the earliest age at which lessons were started as this represents the first socialization experience in the arts.

A series of questions related to parental influence on the respondent's earliest introduction to the arts. One question focused on adults in the household who listened to classical music or opera in the home, thus introducing the respondent to these arts. Two other questions inquired about early experiences of being taken to art exhibits, plays, dance or classical music performances. A final question in this series focused on general encouragement to read.

The last group of questions asked about the educational level of the respondent's mother and father. Parents' education levels may be associated with the type and range of socialization experiences available to the child.

The questions and the number of responses for each category are shown in Table 7.1. For question 36a, for instance, 2,652 of the 5,683 respondents reported that they had at some time taken a music lesson or class; 1,334 had taken these lessons before the age of twelve; 64 had taken lessons during all age periods. Question 37 refers to experiences in the home while growing up. Thus, in response to 37a, 465 respondents recalled that their parents often listened to classical music or opera while 40 respondents gave uncodeable answers. In response to Question 38a, dealing with fathers' education, 1,073 respondents reported their father's educational achievement as 7th grade or less, 1,323 as 12th grade, while 1,131 respondents did not know and 69 gave uncodeable responses.

Before proceeding with an analysis of resulting data, it is important to caution the reader about a methodological problem with the collection of socialization data which might distort their apparent relationship to arts participation. Questioning the respondent first about recent arts participation and later about related socialization experiences is likely to have raised the salience of recalled socialization experiences. People who attended recent arts events might have better recall of related arts socialization experiences, or they might have exaggerated their early arts exposure. Both possibilities would inflate the apparent relationship between socialization experiences and arts participation.

Table 7.1: Socialization Experiences (N=5683)

36a. The following questions are about lessons or classes you may have taken at any time in your life.
Have you EVER taken lessons or a class in music — — either voice training or playing an instrument?
0 ☐ No 3031 2652
Yes — Did you take these lessons when you were — —
(Mark all that apply.)
1 ☐ **Less than 12 years old?** 1334
2 ☐ **12—17 years old?** 1742
3 ☐ **18—24 years old?** 476
4 ☐ **25 or older?** 274 64=All

b. (Have you EVER taken lessons or a class) in visual arts such as sculpture, painting, print making, photography, film making, etc.?
0 ☐ No 4348 1335
Yes — Did you take these lessons when you were — —
(Mark all that apply.)
1 ☐ **Less than 12 years old?** 167
2 ☐ **12—17 years old?** 710
3 ☐ **18—24 years old?** 526
4 ☐ **25 or older?** 353 27=All

c. (Have you EVER taken lessons or a class) in acting or theater?
0 ☐ No 5168 515
Yes — Did you take these lessons when you were — —
(Mark all that apply.)
1 ☐ **Less than 12 years old?** 59
2 ☐ **12—17 years old?** 343
3 ☐ **18—24 years old?** 185
4 ☐ **25 or older?** 56 6=All

d. (Have you EVER taken lessons or a class) in ballet?
0 ☐ No 5264 419
Yes — Did you take these lessons when you were — —
(Mark all that apply.)
1 ☐ **Less than 12 years old?** 290
2 ☐ **12—17 years old?** 115
3 ☐ **18—24 years old?** 77
4 ☐ **25 or older?** 49 8=All

e. (Have you EVER taken lessons or a class) in creative writing?
0 ☐ No 4664 1018
Yes — Did you take these lessons when you were — —
(Mark all that apply.)
1 ☐ **Less than 12 years old?** 45
2 ☐ **12—17 years old?** 437
3 ☐ **18—24 years old?** 561
4 ☐ **25 or older?** 176 4=All

f. (Have you EVER taken lessons or a class) in pottery, leatherwork, weaving, woodworking, or any other craft-art?
0 ☐ No 3923 1759
Yes — Did you take these lessons when you were — —
(Mark all that apply.)
1 ☐ **Less than 12 years old?** 188
2 ☐ **12—17 years old?** 884
3 ☐ **18—24 years old?** 431
4 ☐ **25 or older?** 568 9=All

g. (Have you EVER taken a class) in art appreciation or art history?
0 ☐ No 4589 1094
Yes — Did you take these lessons when you were — —
(Mark all that apply.)
1 ☐ **Less than 12 years old?** 47
2 ☐ **12—17 years old?** 369
3 ☐ **18—24 years old?** 702
4 ☐ **25 or older?** 125 4=All

h. (Have you EVER taken a class) in music appreciation?
0 ☐ No 4522 1161
Yes — Did you take these lessons when you were — —
(Mark all that apply.)
1 ☐ **Less than 12 years old?** 127
2 ☐ **12—17 years old?** 553
3 ☐ **18—24 years old?** 582
4 ☐ **25 or older?** 99 10=All

CHECK ITEM D
Are either of respondent's parents present during asking of 37a—38b?
0 ☐ No } *Ask 37a* 5254
1 ☐ Yes } 291 NA=138

37a. The following questions are about activities in the home when you were growing up.
Did your parents — — or other adult members of the household — — listen to classical music or opera often, occasionally, or never?
1 ☐ Often 465
2 ☐ Occasionally 1240
3 ☐ Never 3938 NA=40

b. Take you to art museums or galleries often, occasionally, or never?
1 ☐ Often 258
2 ☐ Occasionally 1640
3 ☐ Never 3753 NA=32

c. Take you to plays, dance or classical music performances (often, occasionally, or never)?
1 ☐ Often 280
2 ☐ Occasionally 1506
3 ☐ Never 3860 NA=37

d. Encourage you to read books which were not required for school or religious studies (often, occasionally, or never)?
1 ☐ Often 2166
2 ☐ Occasionally 1605
3 ☐ Never 1883 NA=29

CHECK ITEM E
Look at Control Card items 13a, b, and c to determine whether respondent's parents are household members.
1 ☐ Neither parent is household member — *Read* Ⓐ *and ASK 38a and 38b.* 4872
2 ☐ Both parents are household members — *Transcribe father's education to 38a and mother's education to 38b based on cc 21 and 22. END INTERVIEW.* 386
3 ☐ Only father is a household member — *Read* Ⓐ *and ASK 38b. Transcribe father's education to 38a from cc 21 and 22.* 38
4 ☐ Only mother is a household member — *Read* Ⓐ *and ASK 38a. Transcribe mother's education to 38b based on cc 21 and 22.* 201

Ⓐ **Now I'd like to ask you a question about your parent's education. This information, along with the other information in this survey, will be used to study the relationship between these things and participation in the arts.**

38a. What is the highest grade (or year) of regular school your FATHER completed?
1 ☐ 7th grade or less 1073
2 ☐ 8th grade 726
3 ☐ 9th—11th grades 541
4 ☐ 12th grade 1223
5 ☐ College (did not complete) 324
6 ☐ Completed college (4+ years) 596
7 ☐ Don't know 1131 NA=69

b. What is the highest grade (or year) of regular school your MOTHER completed?
1 ☐ 7th grade or less 920
2 ☐ 8th grade 707
3 ☐ 9th—11th grades 637
4 ☐ 12th grade 1695
5 ☐ College (did not complete) 402
6 ☐ Completed college (4+ years) 378
7 ☐ Don't know 878 NA=66

END THIS LAS INTERVIEW

NOTES

2) POPULATION ESTIMATES OF SOCIALIZATION EXPERIENCES

The responses from the sample in Table 7.1 are generalized in Table 7.2 (after weighting to improve representativeness) to the adult population of the U.S. Table 7.2a presents the population percentages, while Table 7.2b expresses the absolute numbers estimated to give each response. For instance, 47% of the population has had music lessons, and 23% had music lessons before they were 12 years old. Music lessons are by far the most common socializing experience into the arts. Lessons in the visual arts and arts/crafts (pottery, leatherwork, weaving, etc.) are also relatively common, experienced by about a quarter to three-tenths of the population. About a fifth of the population had lessons or classes in creative writing, art appreciation or history, and music appreciation. A much lower percentage, less than 10%, had lessons in acting or ballet.

As children, only a small percentage (5-10%) of respondents were frequently exposed to classical music, opera, art museums, plays, or dance, by household members, and approximately two-thirds were never exposed to these arts. If these types of parent-mediated experiences are relatively rare, another type is quite common--most adult respondents remember being encouraged to read.

Table 7.2a: Rates of Exposure to Art Socialization Experiences: Percentages of the Adult Population Exposed

		Lessons or Class at Ages:			
	Ever	Less than 12	12-17	18-24	25 or more
Lessons or classes:					
Music	47.1%	23.4%	31.2%	8.4%	4.8%
Visual arts	24.0	3.0	13.2	9.3	6.0
Acting	9.3	0.9	6.1	3.3	0.9
Ballet	7.2	4.8	1.8	1.2	0.9
Creative writing	18.0	0.9	7.8	10.2	3.0
Arts/crafts	31.2	3.3	16.5	7.5	9.6
Art appreciation	19.5	0.9	6.6	12.6	2.1
Music appreciation	20.4	2.1	9.9	10.2	1.8

Parent-Mediated:	Often	Occasionally	Never
Listened to classical music/opera	8.1%	21.9%	69.6%
Took to museums	4.5	28.8	66.3
Took to plays/dance/classical music performances	5.1	26.1	68.4
Encouraged reading	38.1	28.8	32.7

Table 7.2b: Population Estimates for Art Socialization Experiences: Number of Adults Exposed (in thousands)

		Lessons or Class at Ages:			
	Ever	Less than 12	12-17	18-24	25 or more
Lessons or classes:					
Music	77,760	38,494	51,465	13,926	7,803
Visual arts	39,534	4,782	21,690	15,210	10,119
Acting	15,159	1,656	10,128	5,451	1,563
Ballet	11,814	8,085	3,165	2,199	1,347
Creative writing	29,673	1,266	12,675	16,614	4,968
Arts/Crafts	51,579	5,583	26,943	12,480	15,834
Art appreciation	32,112	1,338	10,932	20,592	3,510
Music appreciation	33,792	3,591	16,227	16,884	2,754

Parent Mediated:	Often	Occasionally	Never
Listened to classical music/opera	13,278	35,937	114,612
Took to museums	7,506	47,175	109,359
Took to plays/dance/classical music performances	8,211	43,140	112,557
Encouraged reading	62,829	47,388	53,931

Table 7.2c: Education Levels of Respondents' Parents: Percentage Reporting Particular Levels of Education for Each Parent

	Father	Mother
Highest grade of education:		
7th grade or less	18.9%	16.2%
8th grade	12.6	12.3
9-11th grade	9.9	11.1
12th grade	21.3	30.6
College (not complete)	5.7	6.9
Completed college	10.5	6.6
Don't know parents' education	20.1	15.6

3) BACKGROUND DIFFERENCES IN SOCIALIZATION EXPERIENCES

Socialization into the arts tends to differ for people with varying social backgrounds. Tables 7.3a and 7.3b present the association between ten background variables and socialization experiences. Tables 7.4a and 7.4b show the same associations between socialization experiences and each variable, after adjusting for all the other background variables. For example, those with higher incomes are more likely to have had music lessons (Table 7.3a). However, after adjustment for other factors (Table 7.4a), the income variation is considerably reduced, indicating that much of the influence of income may be due to other associated factors (e.g., education). Following is a discussion of each socialization experience highlighting the major background differences.

Music Lessons

Respondents with at least some college education are much more likely to have taken music lessons at some time. Young adults, females, whites (except those of unknown national origins), and the more affluent are also more likely than average to have taken music lessons. Much of variation for income and age, however, is attributable to the impact of other background factors, most likely education.

Visual Art Lessons

Those with at least some college education are more likely to have taken art as young adults, as are those earning more than $25,000. However, much of the predictability by income is due to associated factors, such as education.

Table 7.3a: Art Socialization through Lessons or Classes by Selected Background Factors: Percentage of Respondents Above or Below the Grand Mean

	Music	Visual Arts	Acting	Ballet	Creative Writing	Arts/ Crafts	Art Apprec.	Music Apprec.
Grand Mean:	47.1%	24.0%	9.3%	7.2%	18.0%	31.2%	19.5%	20.4%
Income:								
Under $5,000	-12.4	-6.1	-0.3	-1.5	-2.7	-10.3	-6.9	-8.1
$5,000 - $9,999	-12.5	-9.5	-4.0	-2.9	-6.8	-10.0	-9.8	-9.5
$10,000 - 14,999	-2.9	-1.8	-0.7	-0.8	-3.0	-0.8	-4.3	-5.2
$15,000 - 24,999	2.7	-0.3	0.1	-0.6	-1.8	3.3	0.0	1.2
$25,000 - 49,999	10.7	8.4	2.6	2.4	7.9	7.5	9.2	9.2
$50,000 and above	16.4	7.7	4.5	4.6	10.8	7.5	15.7	13.2
Not ascertained	-8.5	-1.8	-2.0	0.8	-2.8	-6.9	-2.4	-2.1
SMSA:								
Cent city of SMSA	-1.2	-0.2	1.5	1.6	1.5	-1.5	0.1	0.5
SMSA, not cent city	5.1	2.8	1.3	1.8	2.6	3.4	3.3	3.9
Not in SMSA	-5.2	-3.1	-3.0	-3.5	-4.3	-2.8	-4.0	-5.0
Age:								
18 - 24 yrs	13.9	17.1	5.5	3.9	12.7	14.1	2.1	-0.3
25 - 34 yrs	7.2	8.7	2.3	3.0	9.1	7.3	9.8	6.9
35 - 44 yrs	1.1	-3.4	-1.2	1.5	-0.6	1.1	3.8	3.1
45 - 54 yrs	-5.0	-6.6	-1.5	-2.4	-5.7	-4.5	-2.9	0.9
55 - 64 yrs	-11.6	-10.2	-2.9	-4.1	-11.0	-10.5	-9.1	-4.9
65 - 74 yrs	-12.2	-13.0	-3.2	-4.0	-12.5	-14.2	-9.5	-9.0
75 - 96 yrs	-17.2	-17.9	-7.2	-6.8	-15.6	-18.1	-15.1	-13.0
Marital Status:								
Married	-1.0	-2.4	-1.6	-0.9	-2.3	-0.8	-0.1	-0.4
Widowed	-11.6	-13.9	-3.7	-4.3	-13.4	-15.4	-12.9	-9.8
Divorced	0.5	0.2	4.1	3.9	5.0	-1.6	1.6	3.8
Separated	-7.4	-6.5	-4.1	-0.1	-1.9	-8.6	-7.1	-2.8
Never Married	8.0	13.3	5.3	3.1	10.7	9.6	5.4	4.0
Ethnic-Race:								
White, Other Origin	4.0	2.3	1.5	1.4	1.5	4.1	0.5	0.4
White, British Isles	4.6	3.7	1.1	-0.1	2.9	-0.9	6.9	7.3
White, W. Europe	-0.3	-2.5	-1.8	-0.1	-1.2	-1.2	-2.1	-2.9
White, E. Europe	2.9	-2.3	-0.8	-0.6	3.1	0.0	6.3	6.2
Hispanic	-25.3	-7.0	-2.0	-3.7	-6.3	-11.5	- 8.8	-11.7
Black (ex. Hispanic)	-6.6	-5.8	-2.3	-3.4	-3.9	-7.4	-3.4	0.6
Other Races	-12.9	-3.7	-4.9	-1.1	-3.9	-3.8	0.9	0.4
White (unknown origin)	-16.3	-7.2	-7.6	-4.7	-8.9	-17.9	-8.1	-12.8
Sex:								
Male	-3.6	1.3	-1.6	-6.3	0.2	0.5	-0.4	-1.5
Female	3.1	-1.2	1.4	5.5	-0.1	-0.5	0.3	1.3
Education:								
Grade School	-36.5	-21.2	-8.9	-7.0	-17.4	-26.9	-18.8	-19.5
Some High school	-20.8	-15.8	-7.7	-5.6	-15.8	-15.7	-16.9	-15.4
High school Graduate	-2.5	-5.5	-3.3	-2.2	-9.5	1.3	-10.4	-8.8
Some College	16.5	11.5	4.7	5.9	12.1	10.5	8.1	8.1
College graduate	21.7	21.4	12.0	6.2	28.0	11.1	36.2	27.7
Graduate school	27.8	25.6	13.9	6.7	29.9	16.5	37.9	39.7
Work Hours:								
None	-5.1	-5.0	-1.0	0.2	-5.2	-5.1	-4.7	-5.1
1 to 29	9.5	8.0	4.7	3.3	[illegible]	6.9	4.7	2.1
30 to 39	2.0	2.7	0.5	0.6	[illegible]	-0.3	5.8	6.7
40 hrs	-1.6	-0.4	-1.0	-1.0	1.7	1.5	-0.7	1.9
41 to 49	5.3	8.2	1.3	1.2	5.1	6.5	6.8	2.5
50 or more	10.5	6.2	0.8	-2.9	6.6	6.8	7.8	7.7
Occupation:								
Professional	22.3	20.4	7.3	5.2	23.6	14.0	29.6	27.0
Managerial	6.1	5.8	3.3	-1.0	11.9	6.9	12.8	10.5
Sales, Clerical	9.0	4.5	2.7	3.9	4.6	4.8	-0.1	4.4
Craftsman	-6.8	-0.8	-3.9	-6.0	-7.5	2.7	-6.3	-6.7
Operatives	-14.6	-9.1	-5.4	-6.4	-10.6	-3.6	-12.6	-12.8
Laborers	-5.6	-2.3	-2.5	-6.9	-8.4	0.1	-7.1	-8.3
Service Workers	1.0	-0.3	0.0	1.5	0.7	-1.1	-3.2	-3.6
Not Working	-0.5	2.1	1.4	2.3	-0.9	-0.3	-1.1	-2.6
Keeping House	-6.4	-9.7	-2.5	0.3	-8.9	-7.5	-6.5	-5.5
Student	11.3	17.8	7.6	12.2	23.4	11.1	10.8	2.2
Retired	-19.0	14.3	-5.3	-6.6	-14.4	-17.7	-12.7	-13.3
Presence of Children:								
No Children	-0.9	-0.5	0.6	-0.8	-0.1	-1.0	-1.1	-0.2
One 6-11	-3.2	-5.2	-5.1	0.7	-8.6	-4.3	-2.6	-2.8
Two+ 6-11	-3.1	0.7	-5.6	0.9	-1.3	5.1	6.3	5.4
One under 6	3.3	-0.7	1.7	3.6	2.4	2.0	4.5	2.4
One 6-11, One under 6	2.2	0.4	-2.2	3.8	-1.1	0.3	-1.1	-2.6
One under 6, Two+ 6-11	4.8	0.5	-3.6	3.4	2.2	2.1	-0.4	-7.5
Two+ under 6	15.4	15.6	3.2	2.9	9.6	11.1	10.1	5.0
One 6-11, Two+ under 6	5.6	5.4	3.3	-0.7	5.8	10.1	7.0	0.7
Two+ 6-11, Two+ under 6	-13.2	3.5	-7.0	-4.8	9.2	12.3	1.2	-0.2

Table 7.3b: Rates of Parent-Mediated Art Socialization Experiences by Background Factors: Percentage of Respondents Above or Below the Grand Mean

	Home Listening Classical Opera	Taken to Art Museums Galleries	Taken to Plays Dance	Encouraged Reading Books
Grand Means	8.1%	4.5%	5.1%	38.1%
Income:				
Under $5,000	-0.9	-0.3	-0.3	-7.8
$5,000 - 9,999	-0.8	-1.7	-1.5	-8.0
$10,000 - 14,999	-0.8	-1.3	-0.1	-3.0
$15,000 - 24,999	-1.5	0.2	0.0	0.9
$25,000 - 49,999	1.2	1.0	-0.3	6.3
$50,000 and above	8.8	2.1	3.7	18.1
Not ascertained	0.6	1.2	2.1	-2.4
SMSA				
Cent city of SMSA	0.6	1.2	0.5	-0.1
SMSA, not cent city	2.0	0.6	0.6	3.8
Not in SMSA	-2.8	-1.7	-1.2	-4.5
Age:				
18 - 24 yrs	-1.4	1.0	0.3	3.7
25 - 34 yrs	-0.5	-0.2	-1.2	5.3
35 - 44 yrs	-1.3	0.5	0.0	-0.7
45 - 54 yrs	2.1	0.2	-0.3	-3.1
55 - 64 yrs	2.0	0.0	0.4	-2.2
65 - 74 yrs	0.5	-1.1	2.3	-6.3
75 - 96 yrs	-0.4	-2.8	0.5	-8.9
Marital Status:				
Married	-0.5	-0.8	-0.3	-0.5
Widowed	3.9	0.7	2.4	-6.5
Divorced	1.1	0.5	-1.8	-0.9
Separated	-3.8	-1.0	-2.2	-6.1
Never Married	0.1	2.1	0.7	5.0
Ethnic-Race:				
White, Other Origin	0.5	0.0	0.5	2.0
White, British Isles	1.8	0.1	1.2	3.0
White, W. Europe	0.8	0.1	-1.0	0.2
White, E. Europe	1.2	6.2	1.2	8.6
Hispanic	-1.4	-2.8	-2.1	-16.1
Black (ex. Hispanic)	-4.4	-0.4	-1.3	-5.2
Other Races	1.3	1.9	1.4	-2.0
White (unknown origin)	-4.9	-3.9	-3.1	-10.3
Sex:				
Male	-1.8	-1.2	-2.2	-5.8
Female	1.6	1.1	1.9	5.0
Education:				
Grade School	-5.0	-3.8	-3.4	-27.0
Some high school	-3.0	-3.3	-2.8	-17.5
High school graduate	-1.6	-1.3	-1.5	-3.9
Some College	3.1	2.2	2.6	12.6
College graduate	4.3	5.2	4.2	21.3
Graduate school	6.5	4.7	4.5	26.3
Work Hours:				
None	0.7	-0.3	0.6	-2.1
1 to 29	0.1	-0.5	0.5	4.2
30 to 39	-1.3	0.0	-0.4	-0.7
40 hrs	-0.9	0.3	-0.7	-1.5
41 to 49	1.6	0.2	0.6	5.6
50 or more	-0.9	0.9	-1.4	5.2
Occupation:				
Professional	3.3	2.6	2.7	16.2
Managerial	1.1	1.4	0.4	7.5
Sales, Clerical	0.7	1.6	0.5	7.9
Craftsman	-2.2	-2.2	-2.6	-10.8
Operatives	-3.3	-3.1	-2.9	-15.3
Laborers	-2.8	-1.6	-3.1	-13.9
Service Workers	-2.2	-0.3	-0.8	-0.3
Not Working	0.3	-0.6	-0.7	1.3
Keeping House	1.3	0.2	1.7	-3.6
Student	3.0	4.5	2.4	21.4
Retired	-1.9	-2.8	-1.3	-9.0
Presence of Children:				
No Children	0.8	0.6	0.8	-0.3
One 6-11	0.8	-0.8	-2.4	0.6
Two+ 6-11	-1.1	-1.8	-2.3	4.7
One under 6	-2.1	-1.7	-2.1	-2.5
One 6-11, one under 6	-3.1	-3.4	-1.1	3.6
One under 6,Two+ 6-11	-6.5	-3.3	-4.1	-11.9
Two+ under 6-11	-3.1	-0.4	-1.8	6.5
One 6-11, Two+ under 6	-5.1	-1.9	-2.0	-1.2
Two+ 6-11, Two+ under 6	-3.8	-2.3	-1.2	3.1

Acting or Theater Classes

Those with a higher level of education are considerably more likely than the average to have taken acting or theater classes. Those earning at least $25,000, young adults, and to a lesser extent, females are also somewhat more likely than average to have taken such classes.

Ballet Lessons

The strongest of the five predictors are gender and education--females and those with at least some college education are the most likely to have taken lessons or classes in ballet. Those with higher incomes and young adults also are more likely than average to have taken ballet lessons or classes. On the other hand, Hispanics and blacks are the ethnic-racial groups least likely to have had ballet training.

Creative Writing Lessons

Younger adults and those with higher education levels are much more likely than the average to have taken creative writing lessons or classes. Whites (except of unknown national origins) also tend have taken creative writing courses. While the more affluent also tend more than the average to have had such training, this trend disappears if other background factors are held equal. Probably education accounts at least partially for the original (unadjusted) association.

Crafts Lessons

Those with higher levels of education and younger adults are more likely to have taken lessons or classes in pottery, leatherwork, weaving, woodworking, or any other arts/crafts. Respondents with higher incomes are also more likely to have attended such lessons, but this trend is largely attributable to other factors, such as education. Whites of "other" origins have a greater than average likelihood to have taken craft lessons, while Hispanics, the retired, and whites of unknown national origins are markedly less likely to have taken such lessons.

Art Appreciation or Art History Course

Educational level is a strong predictor of experience with art appreciation or art history courses; a person with post graduate training is about six times as likely as a high school graduate to have taken such a class. After age 34, the likelihood of having ever taken such courses declines with age, but exposure to art history classes increases with income. Much of the variation due to age and income is attributable to the influence of other factors, probably education. People of "other" races are more likely than the average to have taken such classes, but this slightly higher participation is reversed when other factors are controlled.

Music Appreciation Classes

As in the case of art appreciation and art history courses, higher educational levels are strongly associated with attendance at music appreciation classes. Blacks are the ethnic-racial group most likely to have taken such classes. Those aged 25-54 as well as the more affluent are also more likely than the average to have taken a music appreciation class, but the differences by age and income are largely the result of associated factors such as education.

Introduction to Classical Music or Opera

Those earning $50,000 or more are much more likely to have had parents who often listened to classical music or opera. The likelihood also rises, but more gradually, among those with increased education. People aged 45-64 and females are somewhat more likely than the average to have had parents who were frequent listeners. (Unless families with children of different sexes actually have different listening patterns, the higher rate for females may be a function of selective memory).

Introduction to Art Museums or Galleries

The better educated are more likely to have had parents who often took them to art museums or galleries. Age and income are relatively weak predictors, and are even weaker after adjustment for the impact of other factors. People of "other" races are somewhat more likely than the average to have had parents who frequently took them to art museums or galleries. Females are slightly more likely than males to have had parents who often took them to art displays.

Introduction to Plays, Dance, or Classical Music Performances

Those with at least some college education and those earning at least $50,000, most commonly had parents who often took them to performances of plays, dance, classical music. Females, and people aged 65-74 are somewhat more likely, while "other" races are slightly more likely than average to have had such socialization experiences.

Encouragement to Read

Those with higher levels of education are much more likely to report that their parents frequently encouraged them to read books. Females, individuals in the higher income brackets, young adults, and whites are also more likely to recall that their parents often encouraged them to read. However, after adjustment for other background variables, age and income variations are considerably small, indicating that other factors (most likely education) account for a considerable portion of the initial differences.

Table 7.4a: MCA-Adjusted Art Socialization through Lessons or Classes by Selected Background Factors: Percentage of Respondents Above or Below the Grand Mean

	Music	Visual Arts	Acting	Ballet	Creative Writing	Arts/ Crafts	Art Apprec.	Music Apprec.
GRAND MEAN:	47.1%	24.0%	9.3%	7.2%	18.0%	31.2%	19.5%	20.4%
Income:								
Under $5,000	-3.5	-1.5	1.7	-0.4	2.4	-1.9	-0.4	-1.9
$5,000 - 9,999	-4.1	-3.5	-1.3	-0.7	-0.2	-3.1	-3.1	-3.2
$10,000 - 14,999	1.3	0.9	0.9	0.3	0.7	1.5	0.4	-0.4
$15,000 - 24,999	1.3	-0.9	0.1	-0.7	-2.0	1.6	0.1	1.1
$25,000 - 49,999	3.2	3.1	0.1	0.6	1.3	1.9	1.5	2.2
$50,000 and above	4.5	-0.5	-1.0	1.0	0.3	-0.3	2.7	0.7
Not ascertained	-7.9	-0.2	-1.8	0.9	-1.3	-6.3	-1.2	-2.1
SMSA:								
Cent city of SMSA	1.3	0.4	1.4	2.3	1.2	-0.1	0.4	0.5
SMSA, not cent city	1.2	0.1	0.4	0.9	-0.0	0.8	0.4	1.0
Not in SMSA	-2.5	-0.5	-1.7	-3.0	-0.9	-0.9	-0.7	-1.6
Age:								
18 - 24 yrs	13.3	16.1	3.6	2.6	12.8	12.4	2.2	-0.5
25 - 34 yrs	1.4	5.1	0.7	1.3	5.8	3.4	4.7	1.8
35 - 44 yrs	-2.6	-5.3	-0.6	1.1	-1.7	-1.5	1.4	0.2
45 - 54 yrs	-4.4	-5.7	-0.5	-1.3	-5.5	-4.0	-2.0	1.1
55 - 64 yrs	-8.2	-7.5	-1.6	-2.3	-8.9	-8.5	-5.6	-1.7
65 - 74 yrs	-2.8	-7.8	-1.3	-2.1	-8.5	-6.9	-3.3	-1.1
75 - 96 yrs	-4.9	-11.4	-5.4	-4.9	-10.8	-7.5	-7.4	-3.6
Marital Status:								
Married	0.4	-0.9	-0.8	-0.3	-0.4	0.1	-0.3	-0.8
Widowed	4.0	2.3	0.7	-2.6	0.4	0.2	-0.6	0.2
Divorced	1.3	2.9	3.5	2.1	5.4	-0.1	1.6	2.5
Separated	0.6	-1.9	-1.8	0.0	3.4	-2.8	-1.8	0.7
Never Married	-3.2	1.3	1.4	1.2	-0.9	-0.1	0.8	1.3
Ethnic-Race:								
White, Other Origin	2.4	1.2	1.3	1.3	1.0	2.7	-0.2	-0.3
White, British Isles	2.2	2.4	-0.1	0.0	0.9	-1.3	3.2	3.5
White, W. Europe	0.5	-1.1	-1.3	0.7	0.5	-0.6	-0.9	-2.4
White, E. Europe	2.4	-1.7	-1.3	-0.4	3.4	0.5	4.3	3.2
Hispanic	-17.4	-2.6	0.4	-3.5	-2.6	-7.1	-2.1	-4.0
Black (ex. Hispanic)	-0.8	-2.7	-1.5	-3.9	-2.4	-3.4	0.6	4.7
Other Races	-17.7	-10.0	-7.5	-5.1	-11.5	-7.6	-7.0	-6.0
White (unknown origin)	-8.9	-2.7	-4.8	-2.3	-4.6	-13.3	-2.6	-6.3
Sex:								
Male	-5.5	-0.5	-2.6	-8.0	-1.6	-1.1	-2.9	-3.7
Female	4.8	0.4	2.3	7.0	1.4	1.0	2.6	3.3
Education:								
Grade School	-28.5	-12.6	-7.2	-3.0	-9.9	-18.4	-13.8	-15.6
Some High school	-17.5	-12.0	-7.7	-4.5	-12.4	-12.4	-14.6	-13.5
High school graduate	-3.1	-5.9	-3.7	-3.0	-9.4	0.6	-10.0	-8.5
Some College	13.3	7.7	3.7	4.5	8.6	7.3	6.5	6.9
College graduate	18.6	18.0	12.1	5.7	24.2	8.1	32.8	25.1
Graduate school	26.1	23.6	15.8	7.2	27.1	14.4	33.3	36.3
Work Hours:								
None	0.7	3.1	1.8	0.4	1.8	3.9	-0.6	-1.7
1 to 29	2.5	1.9	1.7	0.2	-1.0	0.4	2.7	0.0
30 to 39	-2.6	-1.9	-1.9	-1.7	-0.5	-5.8	4.8	5.1
40 hrs	-4.0	-4.8	-2.4	-0.5	-1.6	-4.1	-2.2	0.5
41 to 49	-0.4	0.5	-1.2	1.4	-1.7	-1.7	1.7	-1.5
50 or more	6.2	-2.0	-1.5	0.0	-1.1	-1.4	0.5	2.7
Occupation:								
Professional	4.9	6.2	-0.8	0.6	6.2	5.6	5.9	4.3
Managerial	-1.3	2.1	1.9	-0.2	6.5	5.0	2.8	1.0
Sales, Clerical	1.5	1.7	1.1	-0.6	1.6	1.4	4.5	-0.5
Craftsman	0.5	3.8	1.5	1.5	-2.2	5.6	-0.7	-1.1
Operatives	-4.3	-2.0	0.6	-1.0	-2.7	2.3	-3.7	-4.4
Laborers	3.9	1.9	2.4	0.5	-3.0	4.9	0.3	-0.6
Service Workers	0.7	-0.4	0.6	0.3	1.7	-1.2	-2.2	-2.7
Not Working	2.7	-0.1	1.1	3.9	-0.4	-3.3	4.7	4.0
Keeping House	-2.6	-4.6	-2.7	-3.6	-4.1	-4.5	-0.3	0.2
Student	-4.7	-4.7	-3.0	5.4	3.0	-6.3	-0.3	-5.2
Retired	-3.3	-3.6	-0.4	3.9	-3.3	-8.2	0.5	-0.9
Presence of Children:								
No Children	0.3	0.4	0.7	-0.5	1.2	0.5	0.2	0.5
One 6-11	-3.1	-2.6	-4.0	0.6	-7.6	-5.3	-3.5	-3.4
Two+ 6-11	-3.6	2.7	-4.6	0.8	-1.8	4.1	4.3	4.2
One Under 6	-3.0	-7.8	0.2	1.7	-4.6	-5.0	-0.1	-0.3
One 6-11, one under 6	-0.3	-1.3	-1.8	3.9	-3.8	-4.1	-4.1	-3.8
One under 6, Two+ 6-11	5.3	0.0	-3.8	2.4	-0.5	0.7	-3.1	-7.4
Two+ under 6	6.1	6.4	0.9	1.6	0.2	2.5	1.9	-0.5
One 6-11, Two+ under 6	3.3	3.9	3.5	-0.9	3.7	6.1	3.5	-0.6
Two+ 6-11, Two+ under 6	-10.2	4.2	-6.0	-4.7	8.5	12.3	0.2	0.0

Table 7.4b: MCA-Adjusted Rates of Parent-Mediated Art Socialization Experiences by Background Factors: Percentage of Respondents Above or Below The Grand Mean

	Home Listening Classical Opera	Taken to Art Museums Galleries	Taken to Plays Dance	Encouraged Reading Books
Grand Meant	8.1%	4.5%	5.1%	38.1%
Income:				
Under $5,000	0.8	0.5	0.4	-1.0
$5,000 - 9,999	0.9	-0.3	-0.6	-1.1
$10,000 - 14,999	0.4	-0.4	0.8	0.9
$15,000 - 24,999	-1.4	0.3	0.3	0.1
$25,000 - 49,999	-0.5	-0.2	-1.5	0.1
$50,000 and above	5.3	-0.5	1.2	7.7
Not ascertained	0.1	0.8	1.8	-3.1
SMSA				
Cent city of SMSA	0.8	1.0	0.4	0.8
SMSA, not cent city	1.3	0.1	0.3	0.9
Not in SMSA	-2.2	-0.9	-0.7	-1.6
Age:				
18 - 24 yrs	-2.2	0.4	-0.6	0.5
25 - 34 yrs	-0.5	-0.3	-1.7	-0.2
35 - 44 yrs	-1.4	0.9	0.2	-4.2
45 - 54 yrs	2.3	0.4	-0.3	-1.6
55 - 64 yrs	2.6	0.2	0.7	3.0
65 - 74 yrs	1.3	-0.7	3.5	3.2
75 - 96 yrs	-0.6	-2.8	1.5	3.3
Marital Status:				
Married	-0.5	-0.5	0.2	-0.0
Widowed	4.2	2.1	0.8	-0.4
Divorced	-0.1	-0.4	-2.8	-2.7
Separated	-2.6	-0.9	-1.9	-1.5
Never Married	0.3	1.0	0.3	1.2
Ethnic-Race:				
White, Other Origin	0.4	-0.1	0.3	0.8
White, British Isles	0.8	-0.5	0.3	-0.4
White, W. Europe	0.6	0.3	-1.0	0.6
White, E. Europe	0.1	5.6	0.4	7.5
Hispanic	1.2	-1.5	-0.1	-6.8
Black (ex. Hispanic)	-3.6	0.0	-0.2	-0.4
Other Races	0.1	0.7	1.2	-8.1
White (unknown origin)	-3.1	-2.2	-2.0	-3.2
Sex:				
Male	-2.1	-1.5	-2.6	-8.7
Female	1.8	1.3	2.3	7.6
Education:				
Grade School	-6.4	-3.6	-4.9	-25.4
Some High school	-3.7	-3.4	-3.6	-17.1
High school graduate	-1.5	-1.4	-1.6	-4.3
Some College	3.7	2.0	3.3	11.9
College graduate	4.6	5.5	4.9	20.9
Graduate school	7.3	5.3	5.8	27.6
Work Hours:				
None	1.2	-0.1	0.5	-2.3
1 to 29	-0.6	-1.2	-0.4	0.8
30 to 39	-2.2	-0.7	-1.0	-2.3
40 hrs	-1.1	0.4	-0.3	0.2
41 to 49	1.2	-0.1	0.9	5.4
50 or more	-0.9	1.0	-0.8	6.4
Occupation:				
Professional	0.1	-1.1	0.3	-1.6
Managerial	0.0	-0.2	0.6	-0.2
Sales, Clerical	0.0	0.3	-0.5	0.3
Craftsman	1.8	-0.2	1.5	-1.4
Operatives	1.3	-0.8	0.9	-5.0
Laborers	1.8	0.8	0.8	-3.1
Service Workers	-0.6	0.0	-0.1	0.0
Not Working	0.9	0.2	0.0	8.5
Keeping House	-1.1	0.5	-0.5	-2.7
Student	0.1	0.9	-0.6	14.0
Retired	-1.8	0.1	-1.4	4.9
Presence of Children:				
No Children	0.4	0.6	0.7	-0.3
One 6-11	1.8	-0.7	-2.1	2.4
Two+ 6-11	0.2	-1.6	-2.0	6.0
One under 6	-1.1	-1.7	-1.8	-3.8
One 6-11, one under 6	-2.0	-2.8	-0.5	4.3
One under 6, Two+ 6-11	-5.6	-3.0	-3.3	-9.4
Two+ under 6	-2.6	-0.6	-1.7	2.3
One 6-11, Two+ under 6	-4.1	-1.6	-1.5	-0.1
Two+ 6-11, Two+ under 6	-3.3	-2.2	-0.7	7.0

4) DIMENSIONS OF ART SOCIALIZATION EXPERIENCES

Socialization experiences tend to cluster into distinct patterns. That is, certain groups of socialization experiences can be predicted if a single experience is known. A factor analysis of socialization experiences reveals two such clusters. (A third cluster is not relevant for our present analyses since it emphasizes the educational levels of respondents' parents rather than any art socialization experiences.)

The variables encompassed by these two clusters can be read either from Table 7.5 or from Diagram 7.1. In Table 7.5, the variables which are highly correlated with the hypothetical factor (marked with an asterisk) are interpreted as being part of the cluster. The same relationship can be seen in the diagram. Those variables which are most strongly correlated with the first and second factors are farther to the right of the horizontal axis, and farther up on the vertical axis, respectively.

The first cluster tightly groups certain lessons or classes: those in music appreciation, art appreciation/history, creative writing, and visual arts. To a lesser extent, lessons or classes in arts/crafts, music, and theater also fall into this cluster. However, lessons in ballet and parental-mediated experiences are not part of this cluster. The factor analysis suggests that, within this cluster, persons who have had one type of arts class are also more likely to have several other arts classes.

The second cluster groups childhood socialization experiences in the arts that were provided by household members. Parental introduction to the arts through often listening to classical music or opera in the home, taking the child to art museums, and taking the child to performances of plays, dance or classical music, tend to be associated events. To a lesser extent, parents' encouragement of reading for its own sake is also associated with this cluster. In terms of the types of arts socialization experiences provided by parents, the respondents who had experienced one type of parent-mediated arts socialization also tended to have had others.

Table 7.5: Dimensions of Art Socialization Experiences: Varimax Rotated Factor Matrix

	Factor 1	Factor 2	Factor 3
Music Lessons	*.440	.259	.150
Visual Arts Lessons	*.564	.132	.127
Acting Lessons	*.400	.164	.080
Ballet Lessons	.249	.232	.111
Creative Writing Lessons	*.576	.138	.137
Arts/Crafts Lessons	*.443	.138	.085
Art Appreciation Lessons	*.661	.168	.081
Music Appreciation Lessons	*.607	.191	.056
Parents listened to music	.151	*.603	.123
Parents took to museums	.217	*.647	.162
Parents took to performances	.199	*.684	.111
Parents encouraged reading	.261	*.432	.145
Father's Education	.154	.220	*.729
Mother's Education	.198	.186	*.777

* Indicates variables within each factor.

Diagram 7.1: Plot of First and Second Factors of Art Socialization Experiences

```
Horizontal Factor 1     *      Vertical Factor 2
                        *
                        *
                        *
                        *     11
                        *      910
                        *
                        *
                        *
                        *         12
                        *
                        *
                        *                1
                        *     13 4
                        *     14       3         8 7
                        *                6     5
                        *
                        *
          * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
                        *
                        *
                        *
```

1=Music Lessons
2=Visual Arts Lessons
3=Acting Lessons
4=Ballet Lessons
5=Creative Writing Lessons
6=Arts/Crafts Lessons
7=Art Appreciation Lessons
8=Music Appreciation Lessons
9=Parents Listened to Music
10=Parents Took to Museums
11=Parents Took to Performances
12=Parents Encouraged Reading

5) BACKGROUND DIFFERENCES IN ART SOCIALIZATION EXPERIENCES

People differ in the variety of art lessons and classes in which they were involved in childhood as well as in the variety of art forms to which they were exposed by members of the household. The question arises as to whether these differences in the range of socialization experiences show a pattern in terms of a person's social background. For example, do persons of particular ethnic backgrounds tend to have a broader range of such socialization experiences?

The factor analysis above suggests that art socialization experiences tend to form patterns organized around either parental action or classes. Thus, the following analysis addresses the question of social backgrounds by examining two indices: the first is based on the number of reported art lessons and classes, and the second on the number of arts activities encouraged or introduced early in the respondent's life. The data for this analysis can be examined in Table 7.6 and Table 7.7 below. The latter table presents figures adjusted for other background variables.

Index of Art Lessons and Classes

This scale is based on each respondent's reported experience in classes or lessons for eight types of art forms: music (voice or instrument), visual arts, acting or theater, ballet, creative writing, arts/crafts, art appreciation/history, and music appreciation. The national average, indicated by the grand mean, is quite low (less than two types of classes or lessons), but respondents with certain social characteristics fall considerably above and below this average.

Better educated persons, high income persons, younger adults, and

Table 7.6: Indices of Art Socialization Experiences by Selected Background Factors: Number of Experiences Above or Below the Grand Mean

	Lessons & Classes	Parent-Mediated
Grand Mean:	1.8	0.6
Income:		
Under $5,000	-0.5	-0.1
$5,000 - $9,999	-0.7	-0.1
$10,000 - $14,999	-0.2	-0.1
$15,000 - $24,999	0.0	0.0
$25,000 - $49,999	0.6	0.1
$50,000 and over	0.8	0.3
Not ascertained	-0.2	0.0
SMSA:		
Central city of SMSA	0.0	0.0
SMSA, not cent city	0.2	0.1
Not in SMSA	-0.3	-0.1
Age:		
18 - 24 years	0.7	0.0
25 - 34 years	0.5	0.0
35 - 44 years	0.1	0.0
45 - 54 years	-0.3	0.0
55 - 64 years	-0.7	0.0
65 - 74 years	-0.8	-0.1
75 - 96 years	-1.1	-0.1
Marital Status:		
Married	-0.1	0.0
Widowed	-0.9	0.0
Divorced	0.2	0.0
Separated	-0.4	-0.1
Never married	0.6	0.1
Ethnic-Race:		
White, other origin	0.2	0.0
White, British Isles	0.2	0.1
White, W. Europe	-0.1	0.0
White, E. Europe	0.1	0.2
Hispanic	-0.8	-0.2
Black (ex. Hispanic)	-0.3	-0.1
Other races	-0.3	0.0
White (unknown origins)	-0.8	-0.2
Sex:		
Male	-0.1	-0.1
Female	0.1	0.1
Education:		
Grade School	-1.6	-0.4
Some High school	-1.1	-0.3
High School Graduate	-0.4	-0.1
Some College	0.8	0.2
College Graduate	1.7	0.4
Graduate school	2.0	0.4
Work Hours:		
None	-0.3	0.0
1 to 29	0.4	0.0
30 to 39	0.2	0.0
40 hrs	0.0	0.0
41 to 49	0.4	0.1
50 or more	0.4	0.0
Occupation:		
Professional	1.5	0.3
Managerial	0.6	0.1
Sales, Clerical	0.3	0.1
Craftsman	-0.4	-0.2
Operatives	-0.8	-0.3
Laborers	-0.4	-0.2
Service Workers	-0.1	0.0
Not Working	0.0	0.0
Keeping House	-0.5	0.0
Student	0.9	0.3
Retired	-1.0	-0.2
Presence of Children:		
None	0.0	0.0
One 6-11	-0.3	0.0
Two+ 6-11	0.1	0.0
One under 6	0.2	-0.1
One 6-11, one under 6	0.0	0.0
One under 6, Two+ 6-11	0.0	-0.3
Two+ under 6	0.7	0.0
One 6-11, Two+ under 6	0.4	-0.1
Two + 6-11, Two+ under 6	0.0	0.0

higher status white-collar workers report having experienced more types of art classes and lessons. Sharp distinctions in participation are also evident within marital, ethnic, and presence of children categories.

After adjustment for the impact of the other factors (Table 7.7), the variation in the range of classes drops considerably within income, SMSA, age, marital status, work hours, occupation, and number of children groups. These factors, then, are better predictors than explanatory factors. (However, note that some subgroups such as "other" race, older adults, and Hispanics remain low or decrease relative to the average.) Although the variation in range of classes predicted by education drops somewhat as well, education is clearly the strongest explanatory factor among the ten and may account for the lesser impact of other variables after adjustment.

Index of the Range of Arts Introduced or Encouraged in Childhood

This second scale is based on a count of the number of types of arts experiences which household members often provided while the respondents were growing up. The four types of arts experiences are listening to classical music or opera at home, going to art museums or galleries, attending performances of plays, dance or classical music, and, finally, encouragement of reading of literature.

Most of the factors show little variation from the average in terms of arts experience provided by household members. However, the better-educated and more affluent are clearly more likely than average to have had such experience. Occupation, ethnicity and number of children also show some differences.

When other factors are equal, income loses much of its predictive ability, while education continues to be strongly associated with early arts introduction in the household. Ethnic differences as well as differences between white collar and manual occupations largely disappear. In addition to education, gender becomes one of the best explanatory factors for the range of arts socialization experiences in childhood. Males are below average with regard to both art lessons and parental-mediated introductions to the arts, while females tend to be somewhat above average (Table 7.7). Gender differences are actually greater after adjustment for other factors, indicating that other associated variables suppressed the unadjusted variation.

Table 7.7: MCA-Adjusted Indices of Art Socialization Experiences by Selected Background Factors: Number of Experiences Above or Below the Grand Mean

	Lessons & Classes	Parent-Mediated
Grand Mean:	1.8	0.6
Income:		
Under $5,000	0.0	0.0
$5,000 - $9,999	-0.2	0.0
$10,000 - $14,999	0.1	0.0
$15,000 - $24,999	0.0	0.0
$25,000 - $49,999	0.1	0.0
$50,000 and over	0.1	0.1
Not ascertained	-0.2	0.0
SMSA:		
Cent city of SMSA	0.1	0.0
SMSA, not cent city	0.1	0.0
Not in SMSA	-0.1	-0.1
Age:		
18 - 24	0.6	0.0
25 - 34	0.2	0.0
35 - 44	-0.1	0.0
45 - 54	-0.2	0.0
55 - 64	-0.4	0.1
65 - 74	-0.3	0.1
75 - 96	-0.6	0.0
Marital Status:		
Married	0.0	0.0
Widowed	0.0	0.1
Divorced	0.2	-0.1
Separated	-0.1	-0.1
Never married	0.0	0.0
Ethnic-Race:		
White, other origin	0.1	0.0
White, British Isles	0.1	0.0
White, W. Europe	-0.1	0.0
White, E. Europe	0.1	0.1
Hispanic	-0.4	-0.1
Black (ex. Hispanic)	-0.1	0.0
Other races	-0.7	-0.1
White (unknown origin)	-0.4	-0.1
Sex:		
Male	-0.3	-0.2
Female	0.2	0.1
Education:		
Grade School	-1.1	-0.4
Some High school	-1.0	-0.3
High School Graduate	-0.4	-0.1
Some College	0.6	0.2
College Graduate	1.5	0.4
Graduate school	1.9	0.5
Work Hours:		
None	0.1	0.0
1 to 29	0.1	0.0
30 to 39	-0.1	-0.1
40 hrs	-0.2	0.0
41 to 49	-0.1	0.1
50 or more	0.0	0.1
Occupation:		
Professional	0.3	0.0
Managerial	0.2	0.0
Sales, Clerical	0.0	0.0
Craftsmen	0.1	0.0
Operatives	-0.1	0.0
Laborers	0.1	0.0
Service Workers	0.0	0.0
Not Working	0.1	0.1
Keeping House	-0.3	0.0
Student	-0.2	0.1
Retired	-0.2	0.0
Presence of Children:		
None	0.0	0.0
One 6-11	-0.3	0.0
Two+ 6-11	0.1	0.0
One under 6	-0.2	-0.1
One 6-11, one under 6	-0.2	0.0
One under 6, Two+ 6-11	0.0	-0.2
Two+ under 6	0.2	0.0
One 6-11, Two+ under 6	0.2	-0.1
Two+ 6-11, Two+ under 6	0.0	0.0

6) ART SOCIALIZATION EXPERIENCES AND PARTICIPATING IN THE "CORE" ARTS

One consequence of art socialization experiences might be a greater tendency to participate in the arts as an adult. Possibly, the more critical factor for adult participation in the arts may be the cumulative effects of a range of art socialization experiences rather than a single type of experience. The following analysis examines each of these possibilities.

If art socialization experiences do influence art participation by adults, we would expect a correlation between these two events. That is, we should be able to predict adult participation in a type of art from a knowledge of socialization in that type of art during childhood. For example, if a person often visited art museums as a child, and it is assumed that this leads to greater adult attendance at art museums, then we would expect a strong correlation between recollections of childhood attendance and recent attendance at art museums. In addition, childhood socialization in other types of arts may also predict adult participation in a particular art form.

Table 7.8 presents the correlations between arts socialization experiences and adult participation in the arts. (Correlations in the range of 0.40 and above will be referred to as strong; correlations of 0.30-0.39 as substantial; correlations of 0.20-0.29 as moderate; correlations of less than 0.20 as weak.)

Jazz

Lessons or classes in the visual arts or creative writing are the strongest predictors of attending jazz performances, although all art socialization experiences prove to be weak predictors of such attendance.

Classical Music

Having taken a lesson or class in music appreciation or art appreciation/history, or having had parents who played classical music or opera at home are all moderate predictors of attending classical music performances as an adult.

Opera

While each of the art socialization experiences is positively related to attending operas as an adult, none of the socialization experiences treated in this study provide more than a weak predictor.

Musicals

Lessons and classes in either art appreciation/history or music appreciation and having had parents who took their children to plays are moderately associated with adult attendance at musicals or operettas.

Plays

Art appreciation/history classes and having had parents who took their children to plays are moderately associated with attending plays as an adult.

Ballet

Taking ballet classes as a child is a moderate predictor of attending ballet performances as an adult.

Art Museums

Numerous art socialization experiences aid in predicting visits to art museums or galleries as an adult. The predictors of moderate strength are art lessons, art appreciation lessons, classes in music, creative writing and having parents who played classical music at home or took their children to museums or encouraged them to read. An individual's mother's level of education is also a moderate predictor.

Reading

Parental encouragement of reading as a child is the strongest predictor of adult reading of literature. All other socialization experiences are of moderate strength, except having had ballet classes which proves to be a weak correlate of adult reading behavior.

In brief, art socialization experiences provide numerous moderate predictors and one strong predictor of adult participation in the arts, with the notable exception of opera, for which there are only weak predictors. Generally, classes and lessons (particularly those in art appreciation/history, music appreciation and creative writing) seem to have a greater influence on arts participation than early arts experiences mediated by parents.

Table 7.8: Correlations of Art Socialization Experiences and Adult Participation in the Core Arts: Pearson's r

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Reading
Music Lessons	.144	.172	.052	.166	.146	.095	.197	.293
Visual Art Lessons	.191	.172	.062	.172	.155	.133	.276	.219
Acting Lessons	.147	.164	.054	.148	.137	.097	.178	.250
Ballet Lessons	.114	.121	.059	.156	.144	.246	.173	.167
Creative Writing Lessons	.182	.188	.072	.198	.188	.119	.268	.245
Arts/Crafts Lessons	.114	.122	.033	.137	.125	.071	.198	.225
Art Appreciation Lessons	.164	.214	.108	.203	.206	.147	.291	.265
Music Appreciation Lessons	.152	.217	.087	.203	.180	.135	.248	.261
Parents Listened to Music	.106	.208	.119	.152	.162	.120	.201	.223
Parents Took to Museums	.152	.177	.076	.192	.172	.122	.246	.277
Parents Took to Performances	.135	.191	.095	.214	.203	.164	.228	.280
Parents Encouraged Reading	.100	.157	.044	.172	.171	.098	.208	.406
Mother's Education	.125	.155	.039	.180	.152	.086	.203	.273
Father's Education	.118	.137	.035	.167	.159	.106	.194	.257

7) INDICES OF SOCIALIZATION AND ARTS PARTICIPATION

We have seen that respondents recalling certain socialization experiences are more likely to participate as adults in some of the arts. Conceivably, a wider number of such experiences might have a cumulative effect. In other words, those who have had a greater variety of art socialization experiences may be more active participants in the arts, that is, participate in a wider range of arts.

Table 7.9 shows the relationship between an index of adult participation in the arts and two indices of art socialization experiences (lessons/class and parental guidance) as well as the education level of the respondent's mother. The arts participation index represents a count of the variety of the seven arts events attended in the previous 12 months. Similarly, the arts education index is a count of the types of classes or lessons taken among eight categories--music, visual arts, theater, ballet, creative writing, arts/crafts, art appreciation/history, or music appreciation. The parental arts guidance index is a count of four types of arts experience mediated by household members: listening to classical music or opera at home; going to art museums or galleries; going to plays, dances, or classical music; and encouraging the reading of books.* Finally, assuming that mothers with varying education levels provide different types of arts socialization experiences not directly measured by the four categories of parental art guidance, the relationship between the respondent's mother's educational level and the adult participation index is also described.

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*In no sense does the construction of these indices imply that any one socialization experience is equivalent to, or substitutable for another socialiation experience. They simply facilitate any examination of the range of respondents' early arts socialization experiences.

Table 7.9: Arts Participation Indices by Number of Socialization Experiences and Mother's Education: Number of Types of Arts Activities Attended, Above or Below the Grand Mean

	Arts Participation Index
Grand Mean =	0.83
Number of Lessons	
0	-0.56
1	-0.26
2	0.00
3	0.35
4	0.80
5	1.02
6	1.49
7	1.95
8	2.48
Number of Parent-Mediated Experiences	
0	-0.55
1	-0.24
2	-0.04
3	.05
4	1.07
Mother's Education	
11th grade or less	-0.21
High school graduate	0.12
Some college	0.81
College graduate	1.98
Do not know	-0.49

Examination of the table suggests that each of these variables has a positive relationship with attending a range of arts events. In other words, a greater variety of arts attendance can be predicted among groups who have had a wider range of art lessons/classes, more types of parental introduction to the arts, or a mother with a high level of education. The index of art classes or lessons is, however, a much stronger predictor of the variation in the breadth of adult arts participation than is the index of parental guidance or the level of the mother's education.

Table 7.10 also presents the same relationships after adjustment for the influences of associated background variables. Comparison of the variations predicted by the two indices and mother's education, before and after adjustment, suggests the degree to which the variations are attributable to the influence of other factors. In each case, the range of variation drops considerably after adjustment, indicating that other factors account for a large part of the differences in rates predicted by the three indices. However, the basic relationships are unchanged: the index of art classes and lessons remains a relatively strong explanatory factor for attending a range of arts events, whereas the index for parental art guidance and mother's education are quite weak as explanatory factors.

Table 7.10: MCA-Adjusted Arts Participation Indices by Number of Socialization Experiences and Mother's Education: Number of Types of Arts Activities Attended, Above or Below the Grand Mean

	Arts Participation Index
Grand Mean =	0.83
Number of Lessons	
0	-0.41
1	-0.20
2	-0.03
3	0.22
4	0.63
5	0.78
6	1.18
7	1.54
8	2.06
Number of Parent-Mediated Experiences	
0	-0.24
1	-0.12
2	-0.08
3	0.23
4	0.58
Mother's Education	
11th grade or less	0.00
High school graduate	-0.06
Some college	0.20
College graduate	0.23
Do not know	-0.09

SUMMARY

The extent of the public's early experience with socialization into the arts varies considerably by art form. Almost one out of two American adults has at sometime had a class or lesson in voice or a musical instrument, while less than one out of ten has had a class in ballet. Approximately two-thirds of the adult population report never having been taken by their parents to art museums, plays, dance performances or classical music concerts, nor having listened to classical music or opera in their parents' home. However, two-thirds recall being encouraged often or occasionally to read books.

Marked differences in art socialization experiences are observed among adults with varying social characteristics. Adults with higher levels of education or income are more likely to have had almost every type of socialization experience. In addition, there are clear differences by age, gender and ethnicity evident in the rates of reported experiences. These results suggest differential socialization among generational groups; for males as compared to females, and for members of different ethnic subcultures. Income and education differences may, again, be related to distinct subcultural backgrounds, which persist into adult life.

Art socialization experiences tend to form clusters. Respondents, who grew up in families that frequently went to art museums, for example, were also more likely to be exposed to other art forms and encouraged to read books by their parents. Similarly, those respondents who had taken some types of art classes or lessons were likely to have taken others as well. Moreover, respondents of particular social backgrounds were more likely to have had either parental guidance or classes in a variety of the arts.

Once again, better-educated and wealthier adults tend to report a broader range of experiences.

In comparison to the experiences mediated by one's family, formal instruction through an art class or lesson tends to be a better predictor of adult participation in the arts. Nevertheless, family encouragement of reading books apparently ingrains the habit in many people since it is substantially related to reading literature as an adult. Moreover, a wider range of art socialization experiences, particularly classes or lessons, is associated with adult arts participation.

Chapter 8

PUBLIC INTEREST IN INCREASED ARTS PARTICIPATION

Attendance at arts events and performances is not the only reflection of interest in the arts. Rather, people who are interested may be discouraged from attendance or indeed, unable to attend because of certain obstables or barriers. These barriers, for example, may include unavailability of transportation or of tickets, as well as cost factors. Presumably, if some of these barriers could be eliminated or lessened, then the potential audience for the arts could participate more fully.

In the earlier chapters we have implicitly described certain obstacles to attendance by describing differential participation in the arts among people with different social backgrounds. For example, in most cases, low educational achievement and lower income are associated with lower participation in the arts. In this chapter, we approach the issue of barriers to participation from the respondent's viewpoint, focusing on obstacles perceived by the respondent.

This chapter discusses the barrier questions and the tabulations of the respondents' answers, aggregated for the four months (June, July, November and December) in which these questions were included in the SPA survey. These tabulations are then analyzed to answer the following questions:

1) How widespread is the adult public's interest in attending arts events?

2) Among those who are interested in attending more often, which factors are perceived as the chief obstacles or barriers?

3) What kind of people are interested in arts performances and events? Do they tend to share certain social characteristics? Do the same social factors that correlate with expressed interest continue to hold up after other factors are taken into account?

4) Does interest in attending specific art events tend to group into clusters? For example, do respondents who wish to attend opera more frequently also want to attend more jazz or classical music performances?

5) In terms of background characteristics, what type of person manifests increased interest in participating in a broad range of art forms? Do the factors that predict increased interest hold up after other factors are taken into account?

6) Is there an association between interest in attending either a single or a broad range of art forms and actual current attendance? That is, do people interested in participating in the arts actually attend more types of events?

1) BARRIER QUESTIONS AND RESPONSES

The barrier questions were designed to identify the extent of arts interest and the major factors that inhibit people from participating in the arts as much as they would like. Thus, the first question asked about the respondents' interest in increased attendance at various art forms. For those who reported such interest, the interviewers assigned codes to the respondents answers to an open-ended follow-up question about reasons for not attending more often. The precoded categories included the following types of problems:

External	-- Tickets unavailable or too expensive; locally unavailable or too far away; transportation problems; babysitter problems
Personal	-- Feel uncomfortable at performance; fear of crime; no companion; lack of time
Physical	-- Handicapped; age; health
Aesthetic	-- Poor quality of performance; prefer television
Motivation	-- Procrastination

An "other" category was used if the response did not fit into one of the precoded categories. These survey questions are shown in Table 8.1.

Table 8.1 also includes the number of respondents who reported an interest in attending more arts performances. For the first set of queries in question 13a, the column of figures represent the number of respondents who desired to attend more arts events. For example, of the 5,481 respondents, 999 said they would like to attend more jazz performances, and in question 13b 1,691 said they would like to visit art galleries or museums more often. (The column does not sum to the total number of respondents because multiple answers were possible.) In total, 3,458 respondents indi-

Table 8.1: Basic Responses to Barrier Questions

	Column 1 – JAZZ	Column 2 – CLASSICAL	Column 3 – OPERAS	Column 4 – MUSICALS
	13b. What are the reasons you did not attend JAZZ MUSIC PERFORMANCES more often? Any other reason? *(Mark all that apply.)*	**13b. What are the reasons you did not attend CLASSICAL MUSIC PERFORMANCES more often? Any other reason?** *(Mark all that apply.)*	**13b. What are the reasons you did not attend OPERAS more often? Any other reason?** *(Mark all that apply.)*	**13b. What are the reasons you did not attend MUSICAL PLAYS/ OPERETTAS more often? Any other reason?** *(Mark all that apply.)*
1 ☐ Tickets sold out	24	5	2	29
2 ☐ Cost	323	321	166	619
3 ☐ Not available				
4 ☐ Feel uncomfortable	15	5	2	9
5 ☐ Don't have anyone to go with	62	74	34	146
6 ☐ Babysitter problems/Must care for children	72	73	23	139
7 ☐ Problem related to a handicap	9	12	10	23
8 ☐ Problem related to age/health	29	66	35	87
9 ☐ Too far to go	135	161	77	280
10 ☐ Transportation/Traffic/Parking problems	77	92	37	141
11 ☐ Crime or fear of crime	19	29	16	54
12 ☐ Poor quality/Not very good, etc.	27	19	8	54
13 ☐ Prefer to watch TV	19	14	5	25
14 ☐ Don't have time	400	406	130	664
15 ☐ Procrastination/Lack of motivation	95	110	40	184
16 ☐ Other – *Specify*	6	9	2	7

	Column 5 – NON-MUS. PLAYS	Column 6 – BALLET	Column 7 – ART GALLERIES	NOTES
	13b. What are the reasons you did not attend NON-MUSICAL PLAYS more often? Any other reason? *(Mark all that apply.)*	**13b. What are the reasons you did not attend BALLET PERFORMANCES more often? Any other reason?** *(Mark all that apply.)*	**13b. What are the reasons you did not attend ART GALLERIES/ART MUSEUMS more often? Any other reason?** *(Mark all that apply.)*	
1 ☐ Tickets sold out	15	6	0	
2 ☐ Cost	421	211	169	
3 ☐ Not available				
4 ☐ Feel uncomfortable	7	6	5	
5 ☐ Don't have anyone to go with	106	69	100	
6 ☐ Babysitter problems/Must care for children	107	50	93	
7 ☐ Problem related to a handicap	19	161	15	
8 ☐ Problem related to age/health	54	35	78	
9 ☐ Too far to go	200	99	311	
10 ☐ Transportation/Traffic/Parking problems	83	52	118	
11 ☐ Crime or fear of crime	31	18	34	
12 ☐ Poor quality/Not very good, etc.	54	12	24	
13 ☐ Prefer to watch TV	19	10	14	
14 ☐ Don't have time	529	214	773	
15 ☐ Procrastination/Lack of motivation	152	64	208	
16 ☐ Other – *Specify*	16	6	15	

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cated an interest in greater attendance at at least one art form, leaving 2,023 respondents not interested in increasing their frequency of attendance. Each respondent who indicated an interest in greater participation in an art form was asked why he(she) did not attend more often.

Columns 1-7 of follow-up question 13b show the percentage of respondents who identified each reason for not attending as much as they would like. Thus, of the 999 respondents wanting to attend more jazz performances, 24 (.4%) cited "tickets being sold out," 313 (5.8%) cited "cost," and 220 (4.1%) reported "unavailability" as a reason for non-attendance. (Again the total within each column is larger than the number of respondents since multiple answers were possible.)

Population Estimates of Interest in Increased Arts Participation

After weighting to correct for any disproportional representation in the sample by age, gender, or race, the responses to the questionnaire can be used to estimate the extent of interest in increased participation among the U.S. adult population. These estimates, both in percentages and in numbers, are found in Table 8.2. In addition, for purposes of comparison, Table 8.2 includes the estimates of actual attendance at these arts performances, as discussed above in Chapter 3.

It is apparent that a sizeable potential audience for the arts does exist. Roughly one-third of the respondents expressed an interest in attending musicals and art museums more often. While the potential audience with increased interests in the other arts is smaller -- only opera falls below 10% of the adult population -- even that percentage translates into 12 million American adults.

Table 8.2: Population Estimates of Desire to Attend Arts Events More Often: Percentages and Numbers in U.S. Adult Population

	Interested in More Attendance		Actual Attendance in Last 12 Months	
	Percent*	Number (in millions)	Percent*	Number (in millions)
Jazz	18%	30	(10%)	16
Classical Music	18	30	(13%)	21
Operas	7	12	(3%)	5
Musical Plays, Operettas	33	54	(19%)	30
Non-musical Plays	25	40	(12%)	20
Ballet	12	19	(4%)	7
Art Museums	31	51	(22%)	36

* Column does not total 100% due to the interest in increased attendance of multiple art forms.

A comparison of those wanting to attend more often with those who actually attend is informative. Whether indicated by actual attendance or by unfulfilled interests, the same types of art events are the most popular. Furthermore, a significantly larger group desire to attend more often than have actually attended in the previous 12 months. About twice as many people want to attend more ballets, plays, musicals and opera than recently attended. (The proportion who want greater attendance may include many people who have recently attended, as we shall see.)

2) REASONS FOR NOT ATTENDING AS OFTEN AS INTERESTED

The distribution of perceived barriers to increased attendance, as shown in Table 8.3, is quite similar for each performing art form. The factors cited as obstables most often are lack of time and cost. Other commonly perceived barriers include availability of tickets, distance and procrastination.

On the other hand, the perception of barriers for art museums is quite different. In this case, the most commonly cited problems are availability of art exhibits and distance. Although the relative ranking of these barriers is higher than for the other arts, the rates are very similar. For example, 23% cite availability as a major barrier to art museum visits; this compares to a range of 20-26% citing this as an obstacle to attendance at the other art forms. However, there is a significant difference in much lower reports of cost as a barrier to art museum attendance (10% compared to 31-37% for the other art forms). Table 8.3a shows the same responses separately for those who attended that type of arts performance and those who did not attend. In general, the proportions are higher for the attending group (because more of them wanted to attend more) than for non-attendees, but the patterns of response are quite similar in that lack of time and cost factors tend to predominate.

Table 8.3: Perceived Barriers to Attending Arts Performances Mentioned by Those Wanting to Attend Each Art Form More Often: Percentages Reporting Each Type of Barrier

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums
N=	(9,925)	(9,945)	(4,060)	(17,860)	(13,455)	(6,414)	(16,840)
Tickets Sold Out	2.4%	.4%	.7%	1.7%	1.0%	.9%	0.0%
Cost	31.3	31.4	37.3	33.6	31.3	32.0	10.0
Not Available	22.0	20.5	24.1	20.5	20.1	26.4	23.1
Feel Uncomfortable	1.5	.6	0.5	.6	.6	.9	.3
No one to go with	6.4	7.7	9.0	8.1	8.2	11.2	6.0
Babysitter/Child Care Problem	7.0	7.1	5.2	7.5	7.9	7.7	5.5
Handicap	9.0	1.2	2.6	1.4	1.5	2.6	1.1
Age/Health	3.0	6.3	8.0	4.7	3.8	5.5	4.6
Too Far to Go	13.3	15.5	17.2	15.6	15.0	15.0	18.4
Transportion/Traffic	7.7	8.9	8.3	7.9	6.2	8.0	7.0
Crime	1.9	3.1	4.0	3.2	2.4	2.9	2.1
Poor Quality	2.7	1.7	1.9	3.0	3.9	1.7	1.4
Prefer to Watch TV	1.9	1.4	1.2	1.3	1.3	1.5	.8
Don't Have Time	39.1	39.4	29.0	36.8	39.3	31.8	15.6
Procrastination/ No Motivation	9.7	10.7	9.2	9.2	11.6	10.4	12.4
Other	4.6	6.2	3.8	3.7	4.9	4.1	3.7

Note: The figures are calculated with weighted data from the SPA'82 Survey. The columns do not total 100% because a respondent could give more than one answer. "Other" includes such reasons as lack of knowledge about events; don't go out at night; work-related; performance times; moved or in transit; and prefer other activities; but excludes "don't know".

Table 8.3a: Proportion of Attendees and Non-Attendees Citing Various Barriers to Greater Attendance

	Jazz		Classical Music		Opera		Musicals		Plays		Ballet		Art Museums	
	Attendees	Non-Attendees	Attendees	Non-Attendees	Attendees	Non-Attendees	Attendees	Non-Attendees	Attendees	Non-Attendees	Attendees	Non-Attendees	Attendees	Non-Attend·
Tickets Sold Out	2.8	.2	.3	.1	.5	0	1.6	.3	1.8	.1	1.0	.1	.0	.0
Cost	20.9	4.3	17.7	4.2	18.0	2.6	25.9	7.9	20.2	6.0	22.8	3.1	5.0	2.6
Not Available	15.0	3.0	10.6	3.0	13.2	1.6	15.0	4.9	13.3	3.8	15.6	2.6	13.5	5.3
Feel Uncomfortable	.3	.3	.3	.1	0	0	.1	.2	.3	.1	1.1	.1	.1	.1
No One to Go With	3.6	.9	4.2	.9	4.7	.6	4.5	2.2	2.9	1.8	4.1	1.1	3.1	1.4
Babysitter/Child Care Problem	3.0	1.1	3.2	1.1	1.6	.4	4.3	2.1	3.6	1.7	3.1	.8	2.5	1.4
Handicap	0	.2	.1	.2	0	.2	.3	.5	.5	.3	1.0	.3	.3	.3
Age/Health	.7	.5	1.2	1.2	2.8	.6	1.2	1.6	1.6	.9	.5	.7	1.0	1.5
Too far to go	6.7	2.0	8.6	2.1	6.4	1.2	10.6	3.8	9.0	2.9	6.0	1.6	10.2	4.3
Transportation/traffic Parking Problems	5.2	1.0	4.4	1.3	3.9	.6	5.1	2.0	3.6	1.3	4.2	.8	3.6	1.7
Crime	.3	.4	.8	.5	2.9	.2	2.0	.8	1.2	.5	.5	.3	1.3	.4
Poor quality	2.5	.3	1.9	.1	1.6	.1	3.2	.5	3.2	.7	1.4	.2	1.3	.2
Prefer to watch TV	.7	.3	.6	.2	0	.1	.9	.3	.5	.3	.0	.2	.1	.3
Don't have time	23.3	5.5	21.9	5.3	10.6	2.1	25.7	9.0	2.6	7.6	15.7	3.4	30.1	9.5
Procrastination/ No motivation	4.0	1.5	5.2	1.5	3.4	.6	6.7	2.6	6.0	2.3	1.6	1.1	7.5	2.7
Other barriers	.2	.1	1.0	.1	1.5	0	.5	.0	1.2	.2	1.4	.1	.8	.1
Lack of knowledge of events	.6	.2	1.0	.2	0	0	.3	.3	1.1	.1	.0	.2	.4	.2
Don't go out at night	0	.1	.4	.1	.7	.1	.3	.1	.0	.1	.4	.0	.1	.0
Work related	1.8	.2	.9	.2	0	.1	.8	.4	.9	.3	.6	.1	.4	.3
Poor performance time	0	0	.2	.1	.8	0	.0	.0	.2	.0	.5	.0	.3	.1

3) DEMOGRAPHIC DIFFERENCES IN INCREASED INTEREST IN ARTS PARTICIPATION

The interest in attending more arts performances or exhibits differs among various demographic groups. Table 8.4 presents these differences by income, age, SMSA, and education; Table 8.5 shows the same associations for each factor after adjustment for other background factors. The major differences revealed by analysis of demographic sub-groups are:

Jazz

Younger, more educated and, to a lesser extent, affluent individuals are generally more likely to express interest in attending more jazz performances. However, after adjustment, the highest income individuals (those in households earning $50,000 or more) are somewhat less interested than lower income groups in attending more live jazz performances.

Classical Music

The better educated are particularly likely to be interested in more classical music attendance. Those aged 25-54 and the affluent also report greater desires to attend more often. When other factors are held constant, differences between income groups decrease, while older groups (over 35) are higher than average in their interest in attending more often.

Opera

Better educated persons and, to a lesser extent, older and higher income individuals are more likely to want to attend more operas. When other factors are held constant, the impact of age and education is even stronger.

Table 8.4: Demographic Characteristics of People Interested in Increased Arts Participation

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums
Total Sample	18.1	18.3	7.4	32.9	24.9	11.9	30.9
Age:							
18-24	26.7	12.1	2.9	27.8	22.8	12.0	32.4
25-34	25.6	19.1	5.9	34.9	29.9	12.7	40.1
35-44	16.8	21.7	8.3	35.8	27.6	12.3	32.9
45-54	15.9	23.2	10.0	37.5	27.9	13.0	29.2
55-64	10.2	18.2	8.8	32.8	22.2	9.8	25.3
65-74	8.0	15.7	10.1	28.2	17.2	10.3	22.2
75-96	4.6	16.7	11.8	25.3	14.0	11.4	18.1
Education:							
Grade school	6.7	8.7	3.4	11.8	6.6	4.4	12.4
Some High school	12.1	10.0	4.6	18.2	11.7	5.7	21.6
High school graduate	17.5	14.1	6.0	30.0	20.8	9.8	28.9
Some College	22.6	22.7	9.0	44.8	35.6	16.8	38.5
College graduate	26.8	28.4	10.3	49.2	40.4	18.8	44.3
Graduate school	25.5	44.3	18.1	51.9	47.3	22.9	46.9
Income:							
Under $5,000	14.9	12.0	6.5	17.5	12.7	8.1	21.4
$5,000 - $9,999	14.9	14.8	7.1	22.6	15.1	9.6	25.8
$10,000 - $14,999	15.3	15.4	5.2	28.7	20.1	7.9	28.6
$15,000 - $24,999	19.2	17.4	7.4	32.2	26.2	11.5	31.9
$25,000 - $49,999	23.5	24.4	8.9	45.0	34.3	16.7	38.2
$50,000 and above	20.2	24.3	11.1	48.4	43.8	15.9	40.1
Not ascertained	12.1	18.4	7.3	32.4	21.4	11.8	25.5
SMSA:							
Cent City of SMSA	22.6	18.8	7.3	32.8	24.2	13.6	30.8
SMSA, not cent city	19.3	20.9	9.6	38.8	28.4	13.5	31.3
Not in SMSA	12.9	14.5	4.9	25.6	20.8	8.4	30.8
Attended Performance:							
No	14.4	13.9	6.9	25.0	19.9	10.4	23.5
Yes	56.2	53.2	44.5	68.0	61.0	53.4	57.4

Musicals

The better educated and higher income persons are particularly likely to want to attend musical plays or operettas more often. Much of the higher rate of demand among the high income group and the lower rate among the older age groups is attributable to the impact of other background factors -- most likely education which is associated positively with income and negatively with age.

Plays

The desire to attend plays more often tends to be greater among the more educated, the affluent, and those aged 25-54. Much of the variation by income and age is a result of the influence of associated variables, again probably education.

Ballet

Those desiring to attend ballet more frequently are found disproportionately among the more educated and the high income groups. When other factors are controlled, older (rather than younger) individuals express greater interest in attending more frequently, while the highest income group is less likely than average to express such an interest in ballet. Education is probably the explanatory factor for these changes after adjustment.

Art Museums

The desire to visit art galleries or museums more frequently is most common among those with higher education, higher income and in the 25-34 and the 65-96 age groups. However, most of the difference in unfulfilled wishes by income and age is attributable to the influence of other factors, again, most likely the variable of education.

Table 8.5: MCA-Adjusted Demographic Characteristics of People Interested In Increased Arts Participation

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums
Total Sample	18.1	18.3	7.4	32.9	24.8	11.0	31.0
Age:							
18-24	23.5	11.0	1.0	25.5	22.6	11.0	29.4
25-34	25.8	15.5	4.1	30.1	26.0	10.0	35.9
35-44	17.0	19.4	7.8	34.1	25.0	11.2	29.7
45-54	15.5	24.3	11.0	39.0	25.3	14.0	30.3
55-64	10.9	21.1	10.2	37.0	24.7	12.1	28.7
65-74	10.7	21.1	13.0	35.4	23.0	14.4	28.9
75-96	8.3	24.0	16.1	36.3	22.4	17.0	27.6
Education:							
Grade school	12.6	8.3	1.0	17.0	14.4	6.5	18.3
Some High school	14.6	10.2	3.8	20.7	15.4	6.4	24.2
High school graduate	17.3	14.2	6.3	29.3	20.5	9.0	28.6
Some College	20.0	23.0	10.0	43.4	33.4	16.0	36.6
College graduate	22.0	28.3	11.0	47.0	36.4	19.0	42.4
Graduate school	24.0	43.1	18.6	50.0	42.0	23.7	44.6
Income:							
Under $5,000	14.8	15.5	7.3	23.4	18.4	9.3	26.2
$5,000 - $9,999	16.3	19.0	8.1	28.3	21.0	11.3	30.3
$10,000 - $14,999	16.0	18.0	6.5	32.0	23.2	9.0	30.1
$15,000 - $24,999	19.2	17.5	7.8	32.0	25.6	12.0	31.1
$25,000 - $49,999	22.0	20.4	7.5	40.0	29.0	15.1	34.5
$50,000 and above	18.9	16.0	7.1	37.2	34.0	11.3	34.6
Not ascertained	13.5	19.0	7.1	32.9	22.5	12.0	26.8
SMSA:							
Cent city of SMSA	20.6	19.2	7.1	35.0	26.0	14.3	31.7
SMSA, not cent city	18.5	19.5	9.3	35.5	25.4	12.1	28.8
Not in SMSA	15.6	16.0	5.3	28.1	25.3	9.5	33.1
Attended Performance:							
No	15.0	14.8	7.0	26.8	21.0	10.6	24.4
Yes	50.4	46.8	41.4	59.7	52.3	46.3	53.5

4) DIMENSIONS OF INTEREST IN INCREASED ARTS PARTICIPATION

The results of a factor analysis, presented in Table 8.6, do not reveal separate dimensions or clusters of interests in greater attendance at arts events. Rather, most of the arts events are interrelated in terms of interest in greater participation. The interest in increased attendance at live jazz performances correlates notably less well on this dimension than interest in the other six art forms.

Table 8.6: Dimension of Interest in Increased Arts Participation: Results of Factor Matrix Using Principal Factor with Iterations

	Factor 1
Jazz	.281
Classical Music	.596
Opera	.500
Musicals	.528
Plays	.512
Ballet	.579
Art Museums	.453

5) BACKGROUND DIFFERENCES IN RANGE OF INTERESTS IN INCREASED ARTS PARTICIPATION

Respondents with certain background characteristics are more likely than others to be interested in a wider range of arts participation. This analysis is based on a count of the number of arts events (jazz, classical music, operas, musicals, plays, ballets and art museums) which respondents indicated they would like to attend more often. Scores on this index of increased interest thus range from 0 (interest in none) to 7 (interest in all seven). Table 8.7 shows these data for people with different background characteristics. Table 8.8 shows the same associations (between different categories of individuals and overall interest in greater attendance) for each background factor, after the influence of the other factors has been statistically removed.

From Table 8.7, it is evident that the better educated, the more affluent,and white collar workers are most interested in a wider range of arts attendance. Notable variations are also evident among groups differing in marital status, number of children, age, race/ethnicity and gender. In general, those groups who actually attend a wider range of arts events (see Table 8.4) are also more likely to express a desire to attend a range of events more often. In other words, recent participation in a wide range of art forms is associated with even greater demand.

When other background factors are controlled (Table 8.8), a considerable portion of the variation among sub-groups disappears. However, education, race/ethnicity and gender remain strong explanatory factors (probably accounting for some of the initial variation among other variables) and some differences persist within age, income and marital groups.

Table 8.7: Index of Interest in Increased Arts Participation by Background Factors: Deviations Above or Below the Grand Mean

Grand Mean on Interest Index:*	1.4
Income:	
Under $5,000	-0.5
$5,000 - $9,999	-0.3
$10,000 - $14,999	-0.2
$15,000 - $24,999	0.0
$25,000 - $49,999	0.5
$50,000 and above	0.6
Not ascertained	-0.2
SMSA	
Cent city of SMSA	0.1
SMSA, not cent city	0.2
Not in SMSA	-0.3
Age:	
18 - 24 yrs	-0.1
25 - 34 yrs	0.2
35 - 44 yrs	0.1
45 - 54 yrs	0.1
55 - 64 yrs	-0.2
65 - 74 yrs	-0.3
75 - 96 yrs	-0.4
Marital Status:	
Married	0.0
Widowed	-0.4
Divorced	0.4
Separated	-0.2
Never married	0.2
Ethnic-Race:	
White, other origin	0.1
White, British Isles	0.1
White, W. Europe	0.0
White, E. Europe	0.5
Hispanic	-0.3
Black (ex. Hispanic)	-0.4
Other races	-0.4
White (unknown origin)	-0.6
Sex:	
Male	-0.3
Female	0.2
Education:	
Grade School	-0.9
Some High school	-0.6
High School Graduate	-0.2
Some College	0.5
College Graduate	0.7
Graduate school	1.1
Work Hours:	
None	-0.1
1 to 29	0.3
30 to 39	0.2
40 hrs	0.0
41 to 49	-0.1
50 or more	0.1
Occupation:	
Professional	0.8
Managerial	0.4
Sales, Clerical	0.4
Craftsman	-0.5
Operatives	-0.5
Laborers	-0.6
Service Workers	-0.1
Not Working	-0.1
Keeping House	-0.1
Student	-0.1
Retired	-0.5
Presence of Children:	
No children	0.0
One 6-11	0.0
Two+ 6-11	0.1
One under 6	-0.1
One 6-11, One under 6	0.2
One under 6, Two+ 6-11	0.2
Two+ under 6	0.1
One 6-11, Two+ under 6	0.0
Two+ 6-11, Two+ under 6	-0.1

*Index is based on a count of the number of arts events respondents indicate they would like to attend more often; scores range from 0 (interest in none) to 7 (interest in all seven arts activities).

Table 8.8: MCA-Adjusted Index of Interest in Increased Arts Participation by Background Factors: Deviations Above or Below the Grand Mean

Grand Mean on Interest Index:*	1.4
Income:	
Under $5,000	-0.3
$5,000 - $9,999	-0.1
$10,000 - $14,999	-0.1
$15,000 - $24,999	0.0
$25,000 - $49,999	0.2
$50,000 and above	0.1
Not ascertained	-0.1
SMSA	
Cent city of SMSA	0.1
SMSA, not cent city	0.1
Not in SMSA	-0.1
Age:	
18 - 24 yrs	-0.2
25 - 34 yrs	0.0
35 - 44 yrs	0.0
45 - 54 yrs	0.2
55 - 64 yrs	0.0
65 - 74 yrs	0.0
75 - 96 yrs	0.0
Marital Status:	
Married	-0.1
Widowed	-0.1
Divorced	0.3
Separated	-0.1
Never married	0.2
Ethnic-Race:	
White, other origin	0.0
White, British Isles	0.0
White, W. Europe	0.1
White, E. Europe	0.4
Hispanic	-0.1
Black (ex. Hispanic)	-0.1
Other races	-0.7
White (unknown origin)	-0.4
Sex:	
Male	-0.3
Female	0.3
Education:	
Grade School	-0.7
Some High school	-0.5
High School Graduate	-0.2
Some College	0.4
College Graduate	0.6
Graduate school	1.0
Work Hours:	
None	0.0
1 to 29	0.1
30 to 39	0.1
40 hrs	-0.1
41 to 49	-0.1
50 or more	0.0
Occupation:	
Professional	0.1
Managerial	0.2
Sales, Clerical	0.2
Craftsman	-0.1
Operatives	-0.1
Laborers	-0.1
Service Workers	-0.1
Not Working	0.1
Keeping House	-0.2
Student	-0.3
Retired	0.0
Presence of Children:	
No children	0.0
One 6-11	-0.1
Two+ 6-11	0.1
One under 6	-0.1
One 6-11, One under 6	0.2
One under 6, Two+ 6-11	0.1
Two+ under 6	0.1
One 6-11, Two+ under 6	0.1
Two+ under 6, Two+ 6-11	0.1

*Index is based on a count of the number of arts events respondents indicated they would like to attend more often; scores range from 0 (interest in none) to 7 (interest in all seven arts activities).

6) PARTICIPATION IN THE ARTS AND INTERESTS IN INCREASED PARTICIPATION

The relationship between interests and attendance can be interpreted in either of two ways, depending on which variable is considered causal. Does increased interest lead to greater arts attendance, or does greater attendance further stimulate interest in participating? It is likely that there is a reciprocal effect so that both questions can be answered in the affirmative. Table 8.9 presents the correlations between the desire to attend more arts events and actual attendance. (Correlations of 0.30-0.39 will be referred to as substantial; correlations of 0.20-0.29 as moderate; those under .20 as weak.)

The correlations are all positive, with the best predictor of actual attendance at a particular arts event being the expressed interest in attending that type of event more often. For example, while desire to attend ballet more often is associated (.233) with attending ballet performances, it is only weakly associated with attendance at other types of arts events (like jazz and opera). Similarly, interests in attending more jazz performances are moderately associated (.299) with actually attending these performances. Interests in attending musical theatre, classical music performances, plays, ballet or art museums/galleries are all moderately associated with a greater likelihood of actual attendance at each of these events, respectively.

Some interest and attendance patterns cross arts events. For example, interest in greater classical music attendance is moderately related to recent visits to art museums. Interest in more plays and musicals shows a similarly moderate association with attendance at art museums.

Thus, actual attendance at arts events is associated with heightened

Table 8.9: Correlations between Interest in Increased Participation and Actual Participation (Pearson's r)

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Reading
Interest in More:								
Jazz	.299	.084	.004	.067	.065	.033	.117	.127
Classical Music	.081	.293	.097	.182	.164	.115	.237	.199
Opera	.059	.154	.186	.116	.101	.123	.136	.123
Musicals	.064	.181	.064	.321	.205	.097	.218	.286
Plays	.100	.174	.057	.207	.285	.089	.244	.273
Ballet	.095	.180	.107	.163	.130	.233	.194	.187
Art Museums	.072	.140	.039	.106	.094	.069	.270	.234

interest in attending that type of event (and in some cases, other types of art forms as well). However, it is possible that those wanting to participate would attend more often, were it not for the perceived barriers to attendance described in Section 2.

Table 8.9 also shows positive correlations across the art forms. That is, wanting to attend one type of arts event is positively associated with actual attendance at other types of arts events in all cases. We also can determine, then, how much more individuals with varying interests in attending a greater range of arts events may actually participate. In other words, how well does the number of art forms a respondent is interested in attending predict attendance in the arts?

Tables 8.10 and 8.11 present the data relevant to this relationship. Table 8.10 shows the proportions of attendees of each art form across the index of interest in increased participation (in terms of deviation from the grand mean). Table 8.11 shows the same relationships after holding constant 11 background variables: income, age, SMSA, region, race/ethnicity, gender, occupation, number of children, marital status, education and number of work hours per week. The Table 8.11 data indicate whether any of the background variables explain the (unadjusted) associations found in Table 8.10.

Table 8.10 shows that there is an association between interest in increased participation and actual attendance at arts events. Generally, the higher the score on the interest index, the greater the actual attendance (or reading). This also holds true for the general index of arts participation shown in the last column of Tables 8.10 and 8.11. However, these associations are not perfectly linear, since in most cases those highest in interest (index score=7) do not show the most frequent attendance -- at ei-

Table 8.10: Arts Participation by Interest Index Score: Percentage of Respondents Reporting Participation Above or Below the Grand Mean

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Reading	Arts Participation Index
Grand Mean:	9.6%	11.8%	2.2%	18.2%	11.6%	3.6%	22.2%	56.4%	0.83
Interest Index Score:*									
0	-5.7	-9.0	-1.6	-13.7	-8.8	-2.7	-16.7	-22.7	-0.58
1	-0.3	-3.4	-0.6	-2.3	-2.5	-1.7	-1.5	1.3	-0.12
2	-0.2	0.4	0.2	6.9	3.8	0.4	4.8	14.4	0.16
3	6.1	12.4	0.5	17.4	10.0	3.4	20.1	24.1	0.70
4	13.4	23.2	4.0	22.5	17.3	5.7	29.5	27.6	1.15
5	10.6	25.6	7.6	29.0	22.4	15.8	39.1	28.7	1.50
6	9.3	31.8	8.4	27.1	21.3	15.1	37.1	31.0	1.50
7	26.7	22.8	4.0	18.9	20.2	2.2	22.2	22.9	1.17

*Interest Index is based on the number of arts events respondents indicate they would like to attend more often; scores range from 0 (interest in none) to 7 (interest in all seven art activities).

ther particular art forms or in general. When background factors are held constant in Table 8.11, the relationships tend to be weaker but the overall non-linear pattern persists. Increased interest predicts more attendance, then, only up to a point; beyond that point, the more interest, the lower the participation. Those may be people who are really most constrained in their ability to attend arts events.

We can conclude that background variables such as age, education and income explain some of the observed association between desires to attend and actual attendance, but not most of it.

Table 8.11: MCA-Adjusted Arts Participation by Interest Index Score: Percentage of Respondents Reporting Participation Above or Below the Grand Mean*

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Reading	Arts Participation Index
Grand Mean:	9.6%	11.8%	2.2%	18.2%	11.6%	3.6%	22.2%	56.4%	0.83
Interest Index Score:**									
0	-4.0	-6.2	-1.2	-9.8	-5.8	-1.5	-12.1	-14.9	-0.41
1	-0.6	-2.4	-0.3	-1.2	-1.5	-1.4	-0.6	1.4	-0.08
2	-1.1	-1.0	0.0	4.7	2.3	-0.3	2.0	8.9	0.06
3	4.4	9.1	0.0	12.9	6.5	2.0	15.1	16.8	0.50
4	11.4	18.1	3.1	15.5	12.0	3.6	22.4	18.0	0.86
5	8.5	18.8	6.5	20.8	15.3	13.5	30.0	17.1	1.13
6	8.4	23.5	6.8	16.7	13.8	12.0	26.7	16.9	1.08
7	24.0	16.5	3.0	9.8	12.7	0.4	13.3	12.9	0.79

* The factors held constant are: income, age, SMSA, region, race/ethnicity, gender, occupation, number of children, marital status, education and number of work hours per week.

** Interest Index is based on a count of the number of arts events respondents indicate they would like to attend more often; scores range from 0 (interested in none) to 7 (interested in all seven arts activities).

SUMMARY

In this chapter, we have analyzed the association between interest in attending arts events more frequently and perceived obstacles to such attendance. Several conclusions have emerged.

First, a sizable potential audience does exist: roughly twice the size of the present audience for each art form. Second, lack of time and cost are the reasons cited most often as obstacles to attendance at art performances; for visiting art museums and galleries, the major barriers appear to be availability and distance.

In terms of background characteristics, the better educated and more affluent express greater interest in increased arts participation. There are also differences among age, ethnic-racial and gender sub-groups for some of the art forms. Factor analysis identifies a single cluster of art forms (classical music, ballet, musicals, plays, opera and museum attendance) in terms of interest in attending more often.

Typically, interest in greater attendance at one art form is related to actual attendance of that art form; however, there is some association between interest in one form and attendance at a different art form. Finally, the broader the range of increased interests, the greater the likelihood of attending any or all of the art forms. However, people who express a greater range of interests in increased participation across art forms seem to attend less than those more in the middle of the interest index.

Chapter 9

MUSIC PREFERENCES AND ARTS ATTENDANCE

Preferences for certain types of music are a reflection of a general cultural orientation, so we should expect relationships between arts participation and musical preferences. One indicator of musical preferences is the set of "core" questions in the survey on attendance of live musical performances. However, these questions are incomplete indicators of musical preferences for two reasons: first, they do not cover all types of music (they relate only to jazz, classical, opera and musicals); second, they concentrate on live performances. To cover musical preferences comprehensively, a series of direct questions asked respondents what types of music they liked to listen to (Table 9.1).

This chapter presents the musical preference questions and the distribution of responses to them. Further analysis of this information addresses the following questions:

1) What are the most liked types of music? Estimates of the size of the audience who at least likes each type of music can be estimated from the distribution of responses in the sample.

2) How do musical tastes differ among groups with different backgrounds? For example, are males more likely than females to prefer country-western music? Are the best correlates of musical tastes also the best explanatory factors?

3) Along what dimensions do musical preferences tend to cluster? For example, do people who enjoy listening to jazz, or rock music, also tend to enjoy certain other types of music?

4) Do people of certain social backgrounds like a broader range of music? For example, are persons of certain backgrounds more likely to prefer classical music or opera, etc.?

5) Are music preferences useful predictors of attendance at arts performances?

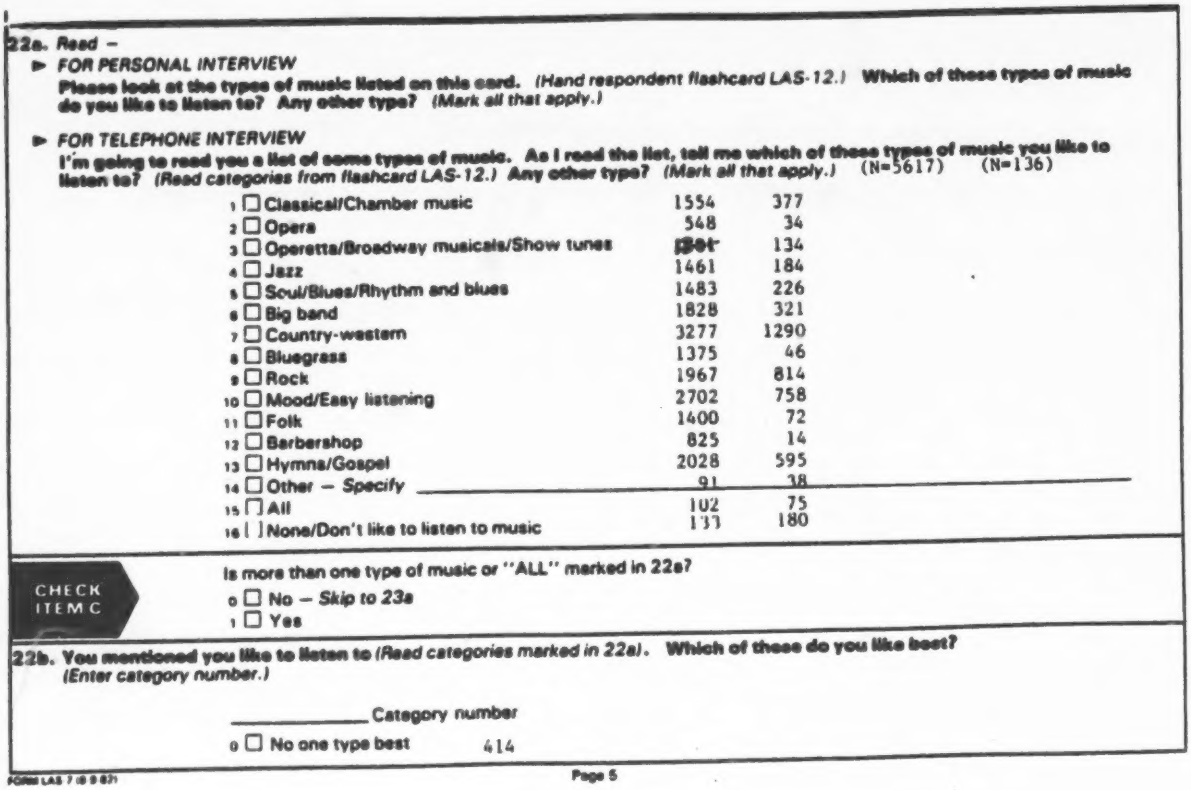
6) Do people who enjoy more types of music, or more varieties of a single dimension or type of music, also tend to participate in the arts?

1) MUSIC PREFERENCE QUESTIONS AND RESPONSES

The music preference questions differentiated among the 13 types of music listed in Table 9.1. After the respondents were asked if they enjoyed listening to each of these types of music, they were asked to specify additional types of music to which they liked to listen. Those respondents who indicated more than one additional musical preference were asked their most preferred music. (This question provides an indicator of the most enthusiastic listeners for each type of music.)

These survey questions and the responses of the 5,617 respondents who answered them are found in Table 9.1. The first column of figures shows the number of respondents who liked to listen to the respective types of music (respondents could give multiple responses); for instance, 3,277 said they enjoyed listening to country-western music. The second column of figures gives the numbers of respondents who liked the respective types of music best. Classical or chamber music, for example, was the favorite listening music for 377 respondents.

Table 9.1: Music Preference Questions



22a. *Read –*

► *FOR PERSONAL INTERVIEW*

Please look at the types of music listed on this card. *(Hand respondent flashcard LAS-12.)* **Which of these types of music do you like to listen to? Any other type?** *(Mark all that apply.)*

► *FOR TELEPHONE INTERVIEW*

I'm going to read you a list of some types of music. As I read the list, tell me which of these types of music you like to listen to? *(Read categories from flashcard LAS-12.)* **Any other type?** *(Mark all that apply.)*

	(N=5617)	(N=136)
1 ☐ Classical/Chamber music	1554	377
2 ☐ Opera	548	34
3 ☐ Operetta/Broadway musicals/Show tunes	[illegible]	134
4 ☐ Jazz	1461	184
5 ☐ Soul/Blues/Rhythm and blues	1483	226
6 ☐ Big band	1828	321
7 ☐ Country-western	3277	1290
8 ☐ Bluegrass	1375	46
9 ☐ Rock	1967	814
10 ☐ Mood/Easy listening	2702	758
11 ☐ Folk	1400	72
12 ☐ Barbershop	825	14
13 ☐ Hymns/Gospel	2028	595
14 ☐ Other – *Specify* ______	91	38
15 ☐ All	102	75
16 ☐ None/Don't like to listen to music	133	180

CHECK ITEM C

Is more than one type of music or "ALL" marked in 22a?

0 ☐ No – *Skip to 23a*
1 ☐ Yes

22b. You mentioned you like to listen to *(Read categories marked in 22a)*. **Which of these do you like best?** *(Enter category number.)*

__________ Category number

0 ☐ No one type best 414

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Population Estimates of Music Preferences

After weighting the gender, race, and age categories to correct any disproportional representations in the sample, the responses to the music preference questions can be generalized as population estimates. These estimates, calculated as both percentages and numbers, are shown respectively in Table 9.2a and Table 9.2b. These estimates reflect, then, the portion and number of U.S. adults who enjoy, or enjoy best, each of the thirteen types of music.

As can be ascertained from the tables, almost all American adults enjoy listening to at least one of these types of music. Most adults, in fact, enjoy at least two types. Country-western and mood/easy listening music are by far the most popular choices, while about a third or more like to listen to rock, hymns and gospel music, and big band. Barbershop and opera are the least popular.

The rankings for best liked music are very similar. Country-western, rock, mood/easy listening, and hymns and gospel music are frequent favorites. On the other hand, despite sizable portions of the adult population who do enjoy them, bluegrass and folk are the favorites of relatively few adults.

Table 9.2a: Music Preferences: Percentages Reporting They Like or Like Best Various Types of Music

	Like	Like Best
Classical/Chamber	28%	7%
Opera	10	0.6
Operetta/Musical/Show Tunes	23	2
Jazz	26	3
Soul/Blues/Rhythm and Blues	27	5
Big Band	32	6
Country-western	58	23
Bluegrass	24	1
Rock	36	15
Mood/Easy Listening	48	14
Folk	25	1
Barbershop	14	0.3
Hymns/Gospel	36	11
Others	2	0.6
Like all types mentioned	2	NA
More than one type	78	NA
No one type liked best	NA	9
		100%

NA = Not Applicable

Table 9.2b: Population Estimates of Number of Adults (in millions) Reporting They Like or Like Best Various Types of Music

	Like	Like Best
Classical/Chamber	45 million	11 million
Opera	16	1
Operetta/Musical/Show Tunes	38	4
Jazz	43	5
Soul/Blues/Rhythm and Blues	44	7
Big Band	53	9
Country-western	96	38
Bluegrass	40	1
Rock	58	24
Mood/Easy Listening	79	22
Folk	41	2
Barbershop	24	1
Hymns/Gospel	59	18
Others	3	1
Like all types mentioned	3	NA
More than one type	129	NA
No one type liked best	NA	12

NA = Not Applicable

2) BACKGROUND DIFFERENCES IN MUSIC PREFERENCES

People belonging to different demographic sub-groups are more or less likely to prefer a particular type of music. Table 9.3 presents music preferences by ten background variables. Table 9.4 shows the same data for each variable after controlling for the effects of other variables. The major differences among sub-categories of these background variables are as follows:

Classical/Chamber

Listening to classical or chamber music is enjoyed particularly by the more educated, white collar employees, the more affluent, "other" races, whites, and the middle-aged. In addition, females are somewhat more likely than males to enjoy this type of music. When other factors are controlled, Hispanics and "other" races are more likely than the average to like classical or chamber music, as are older persons. Other factors also account for much of the variation by income (except for the highest income group), most likely education.

Opera

Enjoyment of opera is especially common among those with highest incomes, higher education, and the older age groups. This music preference is also slightly greater among females.

Operettas/Musicals/Show Tunes

Those with higher incomes, more education, white collar jobs, the middle aged, and females are more likely to enjoy listening to operettas, broadway musicals, or show tunes. When the impact of other factors is statistically controlled, much of the variation by income is reduced (probably

Table 9.3: Music Preferences by Background Factors: Percentages of Respondents Above or Below the Grand Mean

	Classical/ Chamber	Opera	Operettas/ Musicals/ Show Tunes	Jazz	Soul/ Blues/ Rhythm and Blues	Big Band	Country-Western	Blue-grass	Rock	Mood/Easy Listening	Folk	Barber-Shop	Hymns/ Gospel
Grand Mean:	27.5%	9.6%	23.0%	26.1%	26.7%	32.4%	58.0%	24.4%	35.6%	48.0%	[illegible]	[illegible]	[illegible]
Income:													
Under $5,000	-10.5	-2.6	-10.9	-4.9	2.5	-9.9	-7.4	-3.7	-1.3	-13.7	-8.2	-4.1	11.8
$5,000 - $9,999	-4.6	-1.4	-7.9	-4.0	-4.2	-3.2	-3.1	-3.4	-11.4	-14.6	-4.4	0.4	10.6
$10,000 - 14,999	-4.8	-1.2	-2.9	-3.6	-2.0	-5.4	1.7	-0.5	2.2	-5.4	-2.9	0.8	3.1
$15,000 - 24,999	-0.8	-0.6	-1.5	-0.2	-2.6	-0.7	1.5	0.4	2.5	0.9	-2.0	-1.5	-3.8
$25,000 - 49,999	5.3	0.7	8.1	3.1	2.5	5.7	2.8	2.9	5.1	13.3	7.6	0.8	-7.9
$50,000 and above	27.2	14.1	23.8	19.2	12.9	15.9	0.5	7.3	-0.6	14.7	13.7	6.0	-5.2
Not ascertained	2.3	0.2	0.6	0.8	2.3	4.8	-2.7	-2.4	-5.9	1.7	0.2	1.7	0.0
SMSA:													
Cent city of SMSA	2.8	2.5	0.3	6.8	6.3	1.1	-9.3	-5.3	0.5	-2.2	-1.2	-1.4	-2.4
SMSA, not cent city	2.5	0.7	3.8	0.5	0.0	2.7	-2.1	-1.3	2.5	5.5	1.4	0.1	-6.7
Not in SMSA	-5.1	-2.8	-4.7	-5.9	-5.0	-4.0	9.8	5.6	-3.3	-4.7	-0.7	1.0	9.7
Age:													
18 - 24	-10.7	-6.5	-9.4	5.6	5.8	-16.3	-6.8	-4.0	39.6	-6.0	-10.6	-9.0	-15.1
25 - 34	0.4	-4.5	-4.4	6.8	10.0	-11.2	-1.8	3.7	20.6	1.1	1.4	-7.1	-8.3
35 - 44	4.2	0.0	5.9	-2.7	-0.9	-1.7	8.2	3.9	-2.4	5.3	4.1	-2.6	1.5
45 - 54	4.0	5.4	8.3	1.1	-1.2	12.9	5.4	0.5	-22.5	7.8	5.9	6.1	5.0
55 - 64	6.7	5.0	5.5	-3.3	-6.7	19.9	0.1	1.2	-27.3	4.2	1.7	9.1	9.8
65 - 74	-1.0	4.8	1.2	-8.8	-10.9	18.11	1.2	-3.2	-30.1	-3.9	0.9	12.6	14.1
75 - 96	-4.8	6.3	-4.9	-18.6	-20.7	-5.7	-11.2	-13.8	-33.6	-24.5	-5.3	8.6	18.8
Marital Status:													
Married	0.5	0.1	0.8	-2.8	-3.4	2.3	4.3	1.5	-6.3	1.6	1.7	1.4	0.5
Widowed	1.1	3.9	-0.4	-10.9	-12.2	5.6	-2.5	-7.4	-28.8	-7.2	-2.0	5.3	20.3
Divorced	8.8	3.8	7.0	7.9	8.7	4.8	3.3	3.8	3.9	11.2	6.5	0.5	6.0
Separated	-12.4	-3.9	-14.3	3.3	13.7	-11.1	-11.2	-6.6	-0.7	-10.5	-11.1	-5.8	6.3
Never Married	-3.2	-2.3	-2.8	10.2	10.9	-9.7	-12.5	-2.4	29.7	-4.9	-5.5	-5.9	-12.0
Ethnic-Race:													
White, other origin	0.2	0.3	1.5	-2.2	-3.4	0.9	6.3	4.4	3.3	2.9	2.0	1.5	-1.5
White, British Isles	5.1	0.5	6.8	-0.2	-4.8	7.9	4.8	3.6	-8.2	4.0	6.4	7.2	3.8
White, W. Europe	2.9	0.1	0.5	-2.7	-5.4	4.5	2.5	1.9	1.2	5.3	2.9	0.9	-6.1
White, E. Europe	10.4	11.7	12.6	5.1	-2.9	15.0	-7.8	-4.2	-4.9	14.8	6.0	-2.0	-17.2
Hispanic	-1.8	-4.0	-8.2	1.1	1.8	-6.4	-9.6	-14.7	1.2	-8.2	-7.4	-9.2	-20.0
Black (ex. Hispanic)	-12.5	-3.8	-11.5	15.8	32.9	-14.8	-34.3	-19.6	-6.4	-23.9	-16.6	-10.1	26.4
Other races	15.5	2.5	-8.7	2.7	-5.6	-15.5	-11.5	-9.5	0.1	-0.9	-6.4	-7.8	-20.0
White (unknown origin)	-13.6	-1.0	10.2	-19.7	-17.2	-9.2	20.6	6.3	-11.0	-11.2	-8.8	1.4	16.5
Sex:													
Male	-2.4	-1.5	-4.9	2.7	0.3	-0.1	-0.2	2.3	3.2	-4.0	-0.3	-1.2	-6.8
Female	2.1	1.3	4.3	-2.3	-0.3	0.1	0.1	-2.0	-2.8	3.5	0.3	1.0	6.0
Education:													
Grade School	-17.1	-4.6	-17.0	-16.5	-16.4	-12.4	-2.6	-6.7	-26.2	-30.0	-12.1	-2.7	12.1
Attended High School	-12.9	-2.9	-12.7	-9.9	-5.7	-4.6	8.0	-2.5	-13.2	-15.0	-7.1	-1.0	7.4
High School Grad	-6.2	-2.3	-3.1	-3.5	-1.3	-1.7	4.0	-1.3	3.2	1.3	-3.8	-1.3	-1.8
Attended College	6.8	0.0	6.7	8.5	9.2	2.3	-3.5	1.9	11.0	11.7	4.6	2.0	-2.9
College Grad	19.8	6.9	16.8	14.3	7.7	10.3	-9.5	6.2	10.7	14.5	10.9	2.6	-7.2
Attended Grad School	33.4	13.9	22.2	17.6	6.3	14.5	-8.5	7.5	1.6	12.9	21.7	3.7	-3.9
Work Hours:													
None	-1.9	1.1	-2.1	-6.3	-3.8	-0.1	-1.2	-3.5	-9.4	-5.1	-2.6	2.6	5.3
1 to 29	0.3	-0.2	2.9	5.3	3.1	-0.3	-1.9	0.5	5.6	1.7	0.4	-1.2	1.8
30 to 39	-1.0	-2.4	1.2	-2.6	-2.0	-0.5	2.2	-3.4	4.1	4.0	-0.4	-0.2	-5.7
40 hrs	0.3	-0.2	0.6	4.1	2.3	-0.1	-1.3	1.2	6.4	2.1	0.3	-2.7	-6.6
41 to 49	6.0	-2.0	1.6	3.1	3.7	-1.5	7.0	11.6	9.5	11.3	3.6	-1.9	-5.4
50 or more	4.2	-1.1	1.9	9.3	5.9	2.0	4.6	7.2	8.2	4.7	6.5	-1.5	-0.3
Occupation:													
Professional	22.5	7.5	15.7	16.0	11.5	11.8	-5.1	9.7	8.2	16.5	16.1	2.7	-3.1
Managerial	7.4	2.4	10.1	10.0	4.7	12.8	0.5	3.5	1.9	15.2	7.9	1.0	-4.1
Sales, Clerical	1.3	-2.2	7.0	5.3	4.0	2.1	1.3	-2.0	10.5	11.1	0.4	-0.6	-5.9
Craftsman	-6.4	-3.4	-11.3	-5.5	-4.8	-7.8	9.1	6.6	4.7	-8.1	-1.1	-4.4	-11.0
Operatives	-10.1	-5.4	-12.6	-0.5	-2.5	-10.6	5.8	4.5	4.3	-11.5	-5.2	-5.0	2.0
Laborers	-13.9	-5.1	-11.9	-6.1	-1.5	-9.1	-0.9	-2.3	1.4	-15.6	-10.2	-4.4	3.4
Service Workers	-5.5	-1.9	-4.1	1.5	4.7	-6.1	-0.5	-2.0	7.9	-2.4	-2.4	-4.0	-1.9
Not Working	-4.0	-2.1	-6.3	-2.0	2.6	-8.2	-4.8	-2.9	4.9	-10.9	-4.9	-1.3	-0.3
Keeping House	-0.5	1.7	-0.9	-10.2	-7.3	-0.3	-0.1	-4.3	-16.1	-3.1	-3.3	2.9	11.6
Student	-4.6	-1.5	-5.1	10.0	7.9	-11.2	-10.7	-4.0	35.9	1.6	-2.7	-2.9	-18.3
Retired	-4.3	4.3	1.0	-10.9	-14.2	13.5	-0.5	-5.9	-31.2	-9.1	-1.6	8.9	4.1
Presence of Children:													
No Children	0.8	1.6	1.5	1.1	-0.5	3.5	-1.8	-0.9	-3.4	-0.2	-0.0	2.0	1.0
One 6-11	1.8	-3.3	-0.8	-4.7	0.0	-3.8	7.9	2.0	3.3	2.4	-0.2	-1.7	2.6
Two+ 6-11	-1.0	-2.5	6.2	-3.2	1.1	-4.4	5.1	5.0	0.7	5.3	3.4	-2.3	2.4
One under 6	-5.2	-2.5	-7.9	2.7	7.0	-12.5	-1.9	1.1	18.1	-0.7	-1.6	-4.4	-8.4
One 6-11, One under 6	-6.7	-7.7	-3.3	-4.6	1.6	-9.2	8.6	-0.1	8.0	-1.5	-2.1	-7.3	-5.4
One under 6, Two+ 6-11	-1.0	-4.4	-6.7	-0.9	-3.6	-9.7	1.8	-0.6	4.7	-4.7	-2.7	-7.6	1.3
Two+ under 6	-1.1	-5.8	-9.1	-5.1	-3.3	-13.6	6.0	5.3	12.6	-0.4	0.4	-8.6	-4.3
One 6-11, Two+ under 6	-5.8	-0.3	-5.0	-8.2	-3.6	-13.0	6.0	2.3	1.5	0.8	1.3	-4.4	-9.9
Two+ 6-11, Two+ under 6	5.8	-8.2	-5.0	-3.3	4.2	-2.2	7.3	1.4	2.5	-2.0	10.8	-1.1	7.1

due to controlling on education), and older individuals in general are more likely to enjoy these types of music.

Jazz

Preference for listening to jazz is found particularly among higher income, higher education, young and black respondents. Much of the variation by age is attributable to the influence of other variables, such as education.

Soul/Blues/Rhythm and Blues

Enjoyment of soul music, blues, or rhythm and blues is notably higher among blacks. It is also found, to a lesser degree among the highest and lowest income brackets, the young, and the better educated.

Big Band

Older (but not the oldest) age groups, higher income groups, and better educated persons are more likely to express a preference for big band music. When the effects of other factors are held constant, older individuals are actually more likely than the average to enjoy listening to big band music, and the variations by income are considerably reduced; education is probably the major explanatory variable.

Country-Western

Persons with middle incomes, of middle age, of less (but not least) education, and whites are more likely to enjoy country-western music. When adjusted for other factors, the relationship between education and liking country-western music is consistently negative.

Table 9.4: MCA-Adjusted Music Preferences by Background Factors: Percentages of Respondents Above or Below the Grand Mean

	Classical/ Chamber	Opera	Operettas/ Musicals/ Show Tunes	Jazz	Soul/ Blues/ Rhythm and Blues	Big Band	Country-Western	Blue-grass	Rock	Mood/Easy Listening	Folk	Barber-Shop	Hymns/ Gospel
Grand Mean:	27.5%	9.6%	23.0%	26.1%	26.7%	32.4%	58.0%	24.4%	35.6%	48.0%	24.9%	14.4%	36.2%
Income:													
Under $5,000	-3.2	-1.2	-4.4	-3.6	0.0	-2.6	0.0	3.4	1.5	-1.5	-0.7	-2.5	4.6
$5,000 - 9,999	1.0	-0.9	-3.7	-0.3	-2.3	-1.2	-0.7	1.3	-4.1	-6.7	0.3	-0.3	5.1
$10,000 - 14,999	-0.6	0.6	1.0	-1.3	-0.5	-1.9	-0.5	-0.1	-0.6	-2.4	-0.3	2.7	5.0
$15,000 - 24,999	-0.8	0.1	-1.5	-0.2	-2.7	-0.8	-0.5	-1.3	0.5	-0.8	-2.8	-1.1	-2.2
$25,000 - 49,999	-0.4	-0.4	3.6	-0.1	1.4	2.5	1.6	-0.7	1.6	6.4	2.8	0.3	-4.4
$50,000 and abov	13.3	8.0	11.3	13.6	12.2	5.0	1.6	2.7	2.4	3.9	4.3	1.6	-4.5
Not Ascertained	0.1	-1.5	-2.2	0.7	2.7	1.6	-1.9	-1.5	-1.1	-0.5	-0.7	0.0	-1.7
SMSA:													
Cent city of SMSA	3.1	2.5	1.2	4.5	2.5	2.3	-4.6	-2.2	1.5	0.2	0.5	-0.1	-4.1
SMSA, not cent city	0.2	0.1	1.7	-1.0	-0.4	1.3	-2.6	-2.2	-0.1	2.1	-0.3	-0.3	-3.7
Not in SMSA	-2.7	-2.1	-3.0	-2.4	-1.5	-3.3	6.6	4.4	-1.0	-2.6	0.0	0.5	7.6
Age:													
18 - 24	-10.8	-7.9	-11.4	2.6	1.1	-18.0	-2.5	-4.0	35.7	-7.5	-11.0	-11.4	-13.1
25 - 34	-3.9	-6.6	-8.1	5.3	8.5	-15.0	0.1	3.1	21.3	-3.2	-1.9	-9.2	-9.3
35 - 44	0.5	-1.1	3.0	-4.5	-2.2	-5.0	7.3	2.9	-3.1	1.0	1.3	-4.2	1.0
45 - 54	4.9	6.0	9.6	-0.0	-1.8	13.6	4.3	1.1	-22.8	8.5	6.6	6.8	5.2
55 - 64	9.6	6.5	8.5	-1.6	-3.9	22.5	-2.6	1.3	-26.8	7.2	3.7	10.7	10.2
65 - 74	5.8	8.2	7.3	-2.6	-4.6	25.0	-2.4	-1.7	-26.4	4.4	6.3	17.3	14.0
75 - 96	4.9	11.7	5.1	-9.1	-11.6	6.3	-15.1	-12.2	-28.9	-10.9	3.0	15.9	16.5
Marital Status:													
Married	-0.9	-0.7	-1.1	-1.6	-1.9	-0.5	1.5	-0.2	-2.3	-0.7	-0.2	0.2	0.7
Widowed	2.3	-1.8	-1.8	-0.2	-2.6	-2.2	2.0	-1.2	0.8	1.8	-0.9	-5.0	1.5
Divorced	5.7	2.9	3.5	7.3	7.9	2.9	1.7	2.0	6.6	7.9	4.3	-0.1	3.2
Separated	-4.6	-0.7	-6.5	1.1	3.4	-0.4	-2.4	0.4	2.6	1.4	-3.3	1.0	-4.0
Never Married	0.9	-2.0	3.8	2.8	4.1	1.7	-6.0	0.3	4.5	-1.2	-0.1	1.2	-3.4
Ethnic-Race:													
White, other origin	-0.3	0.5	0.8	-2.6	-3.9	0.8	5.8	4.1	2.1	1.8	1.8	1.4	-1.8
White, British Isles	1.6	-2.0	3.5	-0.4	-3.8	3.3	5.8	4.0	-1.9	2.2	4.1	4.3	1.2
White, W. Europe	2.9	-0.2	0.0	-2.4	-5.1	3.1	2.6	2.3	2.9	4.3	2.9	0.5	-5.5
White, E. Europe	5.0	8.3	7.3	3.5	-2.9	7.6	-5.2	-3.2	2.2	10.9	3.0	-5.2	-18.1
Hispanic	4.4	-1.4	-1.9	2.3	3.0	-1.8	-9.2	-13.3	-3.6	-1.7	-3.3	-4.9	-14.9
Black (ex.Hispanic)	-8.0	-2.1	-5.8	17.2	33.3	-9.3	-33.6	-19.5	-9.5	-17.7	-13.5	-7.3	27.9
Other races	8.8	0.9	-14.5	-0.8	-8.6	-16.9	-8.9	-10.8	-4.2	-6.2	-9.3	-7.0	-14.8
White(unknown origin)	-6.5	2.0	-2.7	-13.8	-14.1	-3.5	15.4	5.5	-6.5	-3.3	-6.2	1.6	10.3
Sex:													
Male	-4.0	-2.2	-7.0	1.3	-0.5	-0.9	-0.3	0.8	1.8	-4.8	-2.4	-1.2	-6.1
Female	3.5	2.0	6.1	-1.1	0.4	0.8	0.3	-0.7	-1.5	4.2	2.1	1.1	5.3
Education:													
Grade School	-19.5	-9.5	-17.7	-12.1	-12.4	-19.4	4.1	-1.6	-2.5	-23.7	-11.8	-9.5	-2.0
Attended High School	-13.5	-4.5	-12.0	-7.0	-3.2	-6.1	9.2	-1.7	-4.1	-11.9	-6.4	-3.3	-0.6
High School Grad	-5.4	-1.6	-2.7	-2.5	-0.2	-0.1	3.0	-1.3	1.3	1.7	-3.0	-0.5	-0.7
Attended College	9.2	2.1	7.9	6.6	7.2	6.3	-4.0	1.6	0.1	11.2	5.8	5.0	3.1
College Grad	18.7	7.7	15.0	10.2	4.1	9.6	-11.3	3.8	3.6	9.1	8.6	4.2	-0.8
Attended Grad School	29.3	13.5	19.1	11.7	0.8	10.1	-10.6	2.9	-1.0	5.3	16.5	3.8	0.6
Work Hours:													
None	0.4	0.9	-2.2	0.6	5.8	0.8	4.4	2.8	2.3	-0.7	2.3	1.7	1.0
1 to 29	-0.7	-0.0	2.4	0.9	-4.2	-0.1	-4.2	-2.4	-3.7	-0.7	-1.9	-1.0	1.0
30 to 39	-2.0	-2.1	0.4	-6.3	-8.1	-0.6	-2.8	-7.4	-4.6	0.2	-3.7	0.2	-4.1
40 hrs	-1.3	-0.0	0.6	-1.0	-5.1	-0.8	-4.9	-2.6	-0.8	-1.1	-3.0	-2.0	-3.4
41 to 49	4.4	-1.6	2.9	-0.9	-1.2	-1.0	0.8	5.4	-0.5	8.2	1.4	-0.8	0.4
50 or more	1.7	-1.1	3.0	3.9	0.4	-0.3	0.0	0.7	0.2	2.0	1.9	-0.8	5.6
Occupation:													
Professional	5.0	1.7	1.4	6.8	10.6	6.3	2.2	6.9	3.9	6.3	7.0	2.8	4.4
Managerial	-1.1	0.7	2.3	5.0	6.1	7.5	0.3	-0.1	1.5	6.5	2.2	0.6	2.0
Sales, Clerical	-1.4	-2.1	0.7	3.1	4.2	2.5	4.1	-0.7	3.9	3.1	0.4	1.2	-1.6
Craftsman	0.6	1.7	-4.9	-3.4	0.8	-3.4	5.1	4.9	1.1	-7.4	2.6	-0.4	-0.7
Operatives	0.2	0.4	-4.6	1.8	0.3	-2.5	6.4	7.9	2.0	-5.4	3.0	1.3	6.6
Laborers	-3.7	0.8	-2.3	-4.2	2.8	-2.0	-1.3	-2.1	0.5	-6.4	-3.0	0.1	4.8
Service Workers	-0.8	1.0	-2.7	0.8	3.9	-0.6	4.7	2.6	4.1	-0.2	3.2	0.4	-1.8
Not Working	3.2	0.4	3.1	-2.6	-6.1	-2.7	-6.8	-3.9	-2.5	-2.6	-1.3	0.1	-3.7
Keeping House	-1.3	-1.3	-1.2	-4.3	-8.0	-4.0	-6.5	-4.9	-5.4	-2.1	-6.4	-2.4	-0.2
Student	-3.8	1.0	-0.1	-1.3	-8.5	-0.8	-3.1	-5.2	-1.0	3.7	0.3	2.9	-5.6
Retired	-1.1	-0.1	9.2	-3.6	-6.7	1.1	-2.7	-5.6	-6.4	3.3	-3.0	-3.7	-6.7
Presence of Children:													
No Children	-0.0	0.0	-0.1	1.7	0.9	-0.6	-0.9	-0.2	1.2	-0.5	-0.5	-0.5	-0.7
One 6-11	1.8	-1.7	-1.4	-4.2	-1.7	0.8	2.1	-1.1	1.4	-0.4	-1.8	1.9	2.7
Two+ 6-11	-1.0	0.3	6.7	-4.5	-1.7	2.0	2.3	3.4	-5.0	2.8	2.4	2.7	6.1
One under 6	-1.6	2.6	-1.7	-0.3	2.4	0.2	-1.6	1.0	-1.4	1.6	1.6	1.1	-0.5
One 6-11, One under 6	-3.1	-2.6	3.7	-6.2	-3.4	4.2	7.7	-1.1	-3.8	2.0	1.0	0.2	-2.8
One under 6, Two+ 6-11	1.9	0.4	-0.5	-0.8	-5.0	3.1	-2.7	-2.1	-4.8	-2.4	-0.8	-0.3	6.9
Two+ under 6	2.2	-0.5	-1.9	-9.1	-9.0	-0.4	4.9	3.1	-7.2	2.7	3.0	-1.2	1.3
One 6-11,Two+ under 6	-2.5	5.3	1.4	-7.9	-5.6	0.0	2.4	-0.5	-11.2	3.1	3.5	3.0	-4.2
Two+ 6-11,Two+ under6	7.2	-4.5	1.9	-5.5	0.2	8.6	6.1	0.5	-8.3	0.9	12.2	5.8	14.1

Bluegrass

Liking bluegrass is more prevalent among those with higher incomes, the better educated, younger (but not youngest) adults, whites and males. On the other hand, a preference for bluegrass is much less common among blacks, Hispanics, "other" races, and those over 75 years old. When other factors are held constant, lower income individuals are more likely than those with higher incomes to enjoy bluegrass (probably due to removing the impact of education).

Rock

Enjoyment of rock music is strongly correlated with age -- adults under 25 are about ten times as likely as those over 55 to enjoy rock. The college educated, except those who attended graduate school, are also noticeably more likely than average to like rock. Those of middle incomes, Hispanics, and males are also somewhat more likely to prefer rock music.

Mood/Easy Listening

Better educated, wealthier, middle-aged, white, and female respondents are more likely than the average to enjoy mood or easy listening music. Much of the variation by income is attributable to the influence of other factors such as education.

Folk

Folk music is appreciated more by those with higher incomes, better educated, whites, and middle-aged groups. When other factors are controlled, income variations decrease (probably due to removing the influence of education), and younger individuals are consistently less likely than older individuals to enjoy folk music.

Barbershop

People over the age of 45, and those with household incomes over $50,000 are most likely to enjoy barbershop music. If other factors are controlled, the variation predicted by income declines, but the variation predicted by age and education increases.

Hymns/Gospel

Blacks, older persons, lower income individuals, the less educated, and women are more likely to enjoy listening to hymns or gospel music. After adjusting for the impact of other factors, education accounts for little variation in preference for this type of music.

3) DIMENSIONS AND CLUSTERS OF MUSIC PREFERENCES

Since audiences for a particular type of music tend also to enjoy certain other types of music, it is likely that music preferences form around dimensions or clusters. These dimensions imply that when a person prefers one type of music, then he or she probably prefers other types of music as well. Table 9.5 shows the three dimensions of music preference indicated by a factor analysis of musical preferences. The highest correlations under each factor indicate a clustering of the associated musical preferences (in terms of an underlying hypothetical factor).

This factor analysis generated three dimensions of music preferences. Major types of music on each dimension are marked by an asterisk.

The first dimension includes classical/chamber music, opera, operettas/musicals/show tunes, and big band music. Basically, this dimension clusters music having its roots in the more European classical tradition.

The second dimension clusters country-western, bluegrass, and to a lesser extent folk and barbershop music preferences. In contrast to the first dimension, this group derives from white American folk traditions.

Preferences for jazz, soul/blues/rhythm and blues, and rock music define the third dimension. This dimension represents types of music that have their roots in the folk traditions of black Americans.

In other words, a person who enjoys a type of music belonging to one of these traditions is likely to enjoy the other music types within that tradition and less likely to enjoy music belonging to the other two traditions. (Folk and barbershop are at the fringes of both cluster 1 and cluster 2.)

Table 9.5: Dimensions of Music Preferences: Varimax Rotated Factor Matrix

	Factor 1	Factor 2	Factor 3
Classical/Chamber	*.616	.022	.097
Opera	*.533	-.003	-.006
Operettas/Musicals/Show Tunes	*.649	.113	.107
Jazz	.324	.029	*.592
Soul/Blues/Rhythm and Blues	.220	.117	*.573
Big Band	*.487	.266	.118
Country-Western	-.089	*.527	.006
Bluegrass	.104	*.586	.228
Rock	-.111	.008	*.496
Mood/Easy Listening	.374	.182	.139
Folk	.403	*.492	.164
Barbershop	.420	*.439	-.018
Hymns/Gospel	.221	.322	-.098

* Indicates variables that correlate most strongly with each factor.

This factor analysis has generated the three dimensions of music preference shown in Figure 9.1. Several interpretations of the dimensions that structure this space are possible. (As noted in Chapter 2, no information about the phenomenon under investigation is put into the factor analysis program; it simply generates the structure of the space from the numbers [correlations] fed into it.) The first (horizontal) dimension contrasts classical, opera and operetta/musicals/show tunes on the right, with country-western music on the left; this could reflect a "complex vs. simple" music distinction, except that other simple forms of music (folk, hymns/gospel, etc.) are not located on the left side of the figure. More likely, it is reflective of the social characteristics of the audience for these types of music, with the classical forms of music on the right preferred by older and better educated audiences -- while rock and country-western audiences are relatively younger and less educated. Both age and education factors, therefore, are involved within this dimension.

The second (vertical) dimension contrasts country-western and bluegrass music at the top with opera, rock, jazz and classical/chamber music further away from the top, suggesting a rural-urban distinction. This is further supported by the contrast between folk and barbershop near the top, and soul/blues/rhythm and blues music and operetta/musicals/show tunes at the other end.

The third dimension contrasts "upbeat" (rock, soul/blues/rhythm and blues and jazz) music from the rest. It suggests an age dimension.

It is not necessary, however, to have the dimensions clearly labelled to gain insight into the structure of music preferences in Figure 9.1. One can also examine the clustered patterns of the types of music, in terms of those forms of music that are close to each other spatially (such as bluegrass and country-western, soul/blues/rhythm and blues music and jazz; or classical/chamber music, operettas/musicals/show tunes and opera; or folk and barbershop). There are 78 pairings of music preferences represented in Figure 9.1 and the diagram makes it possible to envision all these pairings in relation to each other in a single graphic portrayal.

More simplified dimensions were afforded by a multidimensional analysis utilizing the ratio-scale properties of these preference data; these properties were reflected in a new distance measure of perceived (musical) similarity based on log-linear analysis and Euclidian geometry (Figure 9.2). While the dimensions are simplified to two, it is clear that the basic clusterings in Figure 9.1 are maintained: classical/chamber vs. country-western, bluegrass vs. rock, soul/blues/rhythm and blues and jazz.

Moreover, the structure of music preferences found in Figure 9.1 does not hold within all segments of the public. Separate factor analyses of the music preference data for nine different age and education categories are presented in Figure 9.3. They indicate that the basic pattern represented in Figure 9.1 is found in only two categories: the middle-aged/low education (group 4) and the older/less educated (group 7). Among all the younger age groups (numbers 1,2 and 3), the horizontal dimension contrasts the high-low music categories with country and rock music together, and the vertical dimensional separates mood/easy listening and big band music from the other forms. And in the remaining four groups (numbers 5,6,8 and 9), it is the country-bluegrass pairing above that defines the dimensions, with the more classical forms of music defining the second dimension.

The analyses in Figures 9.1 and 9.3 indicate significant differences in music preference by factors other than social class and the "high culture vs. popular culture" distinction. In particular, significant differences in preference are found across age cohorts as noted in Table 9.3. In addition, the music based on the classical tradition (classical/chamber music and opera) tends to be more distinctive from others, than rock music and country-western music are from each other.

The reasons that these differential clusterings occur in these particular age-education groups is a topic requiring further analysis and study. The clusters do make clear, however, that not all population groups share the space in Figures 9.1 and 9.2, and that, as these young people age, we may find some dramatic restructuring of patterns of music preferences in the years ahead.

Figure 9.1 Dimensional Portrayal of Music Preferences

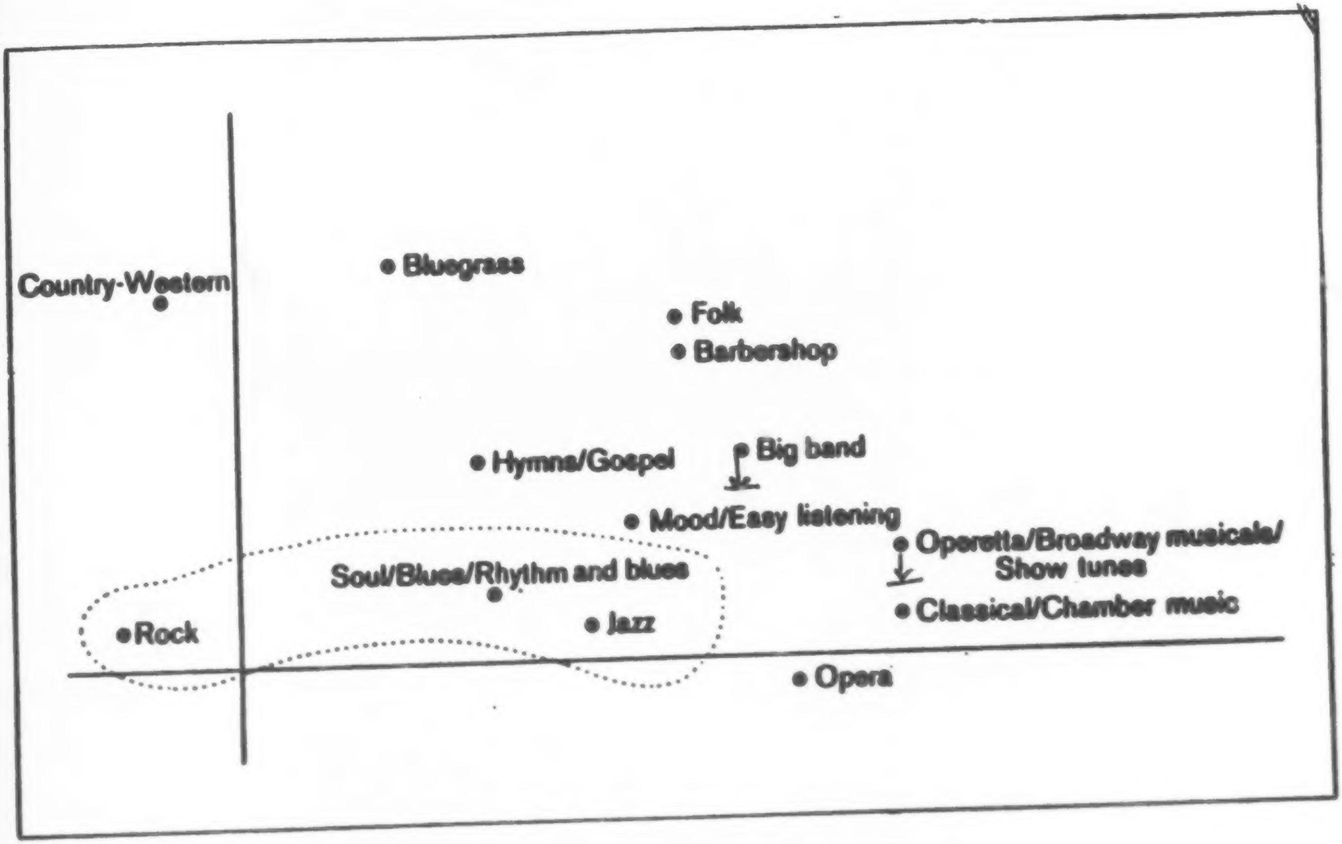


Figure 9.2: Distance Mapping of Music Preferences From Ratio-Scale Measures

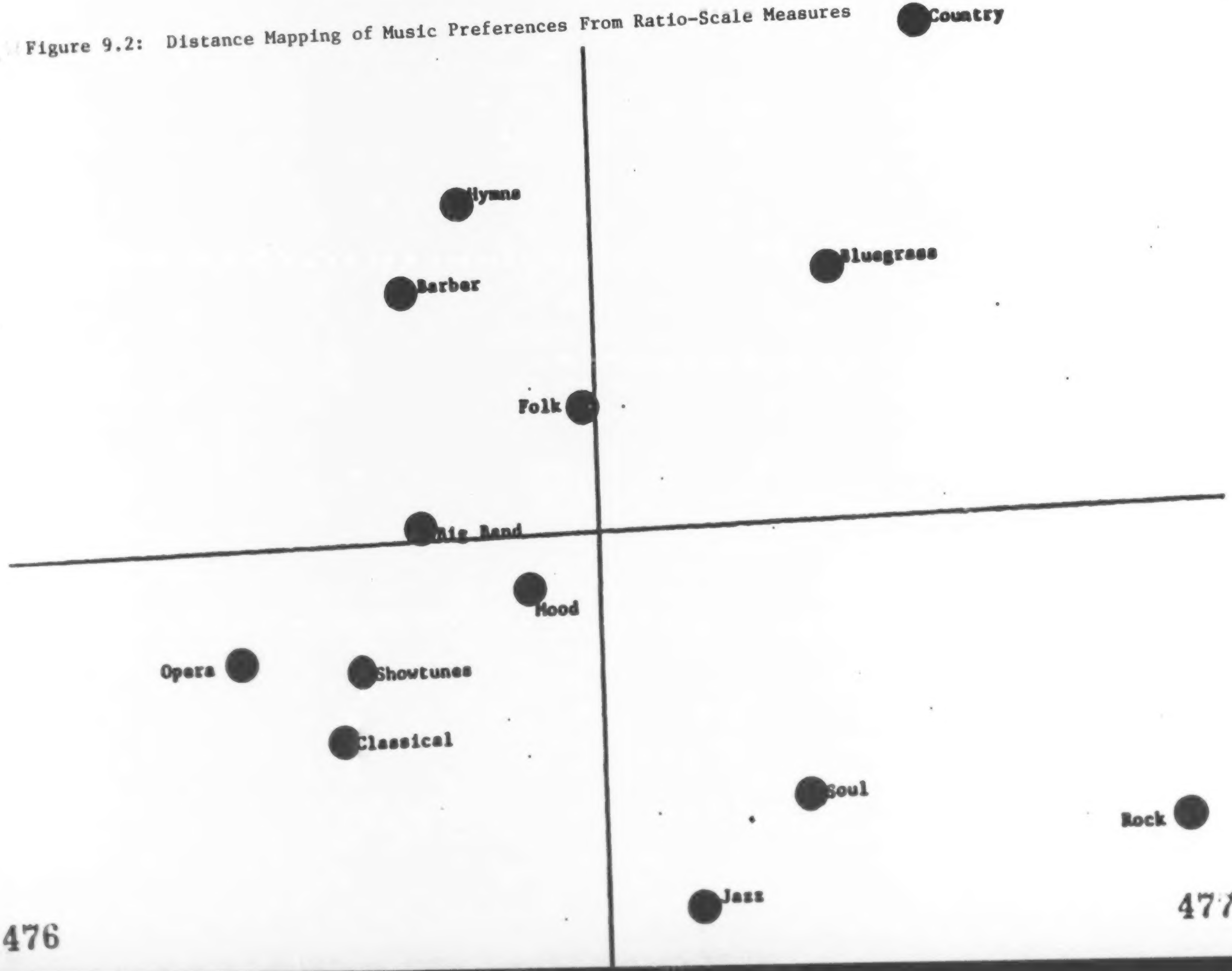
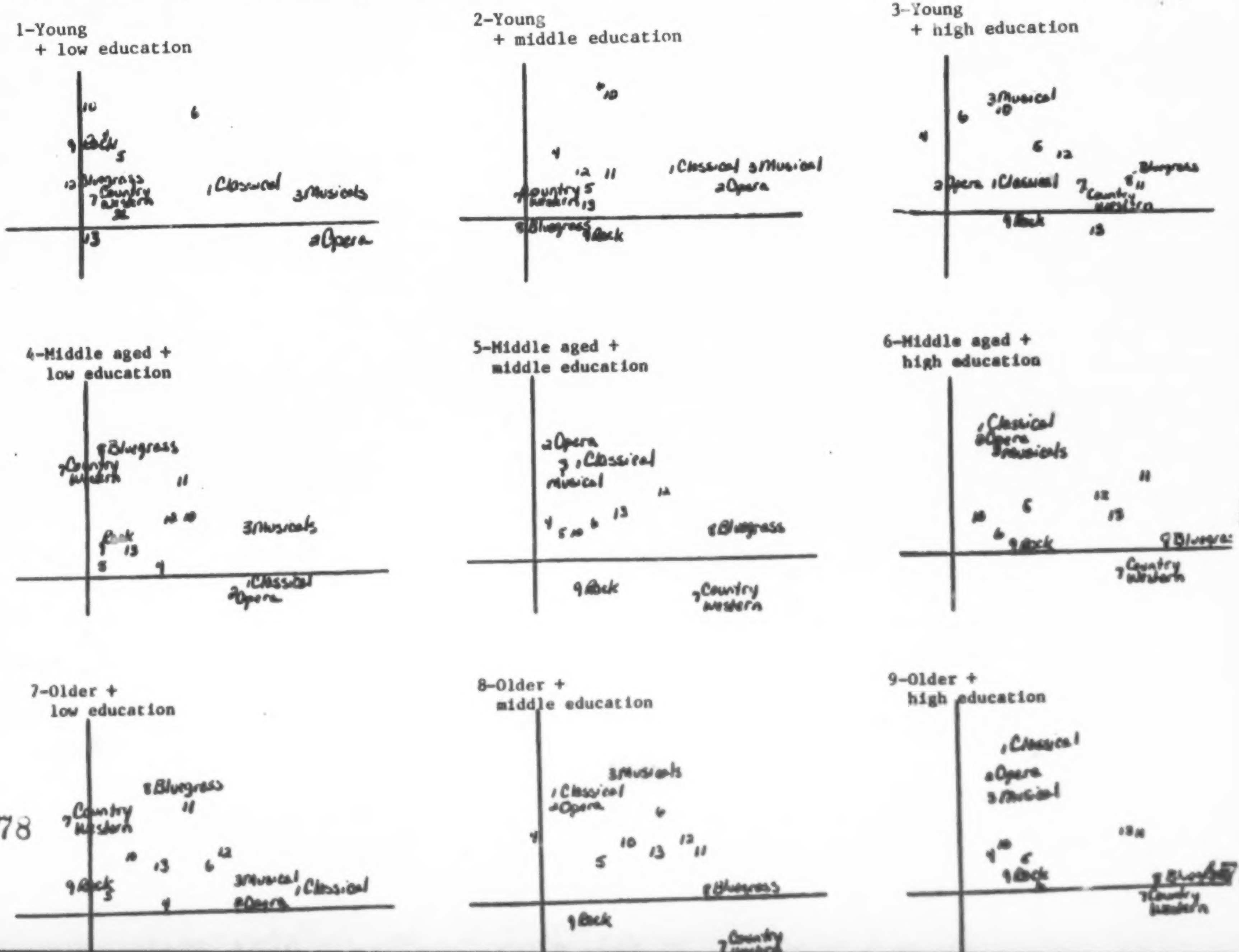


Figure 9.3: Dimensional Portrayals of Nine Age-Education Groups *



1-Young + low education

2-Young + middle education

3-Young + high education

4-Middle aged + low education

5-Middle aged + middle education

6-Middle aged + high education

7-Older + low education

8-Older + middle education

9-Older + high education

4) BACKGROUND DIFFERENCES AND PREFERENCES ON DIMENSIONS

Thus far, our analysis has established that respondents with particular background characteristics are likely to prefer certain types of music. Furthermore, preferences for different forms of music tend to be associated with each other. The analysis now turns to the dimension of preferences; specifically, do individuals of particular social backgrounds tend to have a wider range of preferences in music along the dimensions discussed in the previous section?

Table 9.6 presents data on indices of preferences broken down by ten background variables. Three indices of preference are discussed: the first is an index of the number of preferences for all thirteen types of music; the second is an index of the number of preferences among the four types of music directly related to the core arts activities studied in core questions in SPA'82 (classical music, opera, jazz and musicals), suggested as the first dimension in Figure 9.7; the third is an index of the number of preferences among the the remaining nine types of music.

Table 9.7 presents the relationships between these three indices and each background variable after adjustment to hold the other nine background factors constant.

Index of Preferences for All Types of Music

The average person expresses a preference for approximately four of the thirteen types of music. Respondents of certain social backgrounds report more or fewer preferences than average. For example, college graduates, those in households earning over $50,000, and professionals report about five musical preferences on the average. In addition, certain ethnic groups and marital status groups provide some sharp differences.

Table 9.6: Music Preference Indices by Background Factors: Percentages of Respondents Above or Below the Grand Mean

	All Music	Classical, Opera, Operetta/ Musicals/ Show Tunes, Jazz	Other Music Types*
Grand Mean:	3.9%	0.9%	3.0%
Income:			
Under $5,000	-0.6	-0.3	-0.3
$5,000 - $9,999	-0.5	-0.2	-0.3
$10,000 - $14,999	-0.2	-0.1	-0.1
$15,000 - $24,999	-0.1	0.0	-0.1
$25,000 - $49,999	0.5	0.2	0.3
$50,000 and over	1.5	0.8	0.7
Not ascertained	0.0	0.0	0.0
SMSA:			
Central city of SMSA	0.0	0.1	-0.1
SMSA, not cent city	0.1	0.1	0.0
Not in SMSA	-0.1	-0.2	0.1
Age:			
18 - 24	-0.4	-0.2	-0.2
25 - 34	0.1	0.0	0.1
35 - 44	0.2	0.1	0.2
45 - 54	0.4	0.2	0.2
55 - 64	0.3	0.1	0.1
65 - 74	-0.1	0.0	0.0
75 - 96	-1.1	-0.2	-0.9
Marital Status:			
Married	0.0	0.0	0.0
Widowed	-0.4	-0.1	-0.3
Divorced	0.8	0.3	0.5
Separated	-0.6	-0.3	-0.4
Never married	-0.1	0.0	-0.1
Ethnic-Race:			
White, other origin	0.2	0.0	0.2
White, British Isles	0.4	0.1	0.3
White, W. Europe	0.1	0.0	0.1
White, E. Europe	0.4	0.4	0.0
Hispanic	-0.9	-0.1	-0.7
Black (ex. Hispanic)	-0.8	-0.1	-0.7
Other races	-0.6	0.1	-0.8
White (unknown origin)	-0.6	-0.5	-0.1
Sex:			
Male	-0.1	-0.1	-0.1
Female	0.1	0.1	0.1
Education:			
Grade School	-1.5	-0.6	-1.0
Attended High School	-0.7	-0.4	-0.3
High School Graduate	-0.2	-0.2	0.0
Attended College	0.6	0.2	0.4
College Graduate	1.0	0.6	0.5
Attended Grad School	1.4	0.9	0.6
Work Hours:			
None	-0.3	-0.1	-0.2
1 to 29	0.2	0.1	0.1
30 to 39	-0.1	-0.1	0.0
40 hrs	0.1	0.1	0.0
41 to 49	0.5	0.1	0.4
50 or more	0.5	0.1	0.4
Occupation:			
Professional	1.3	0.6	0.7
Managerial	0.7	0.3	0.4
Sales, Clerical	0.3	0.1	0.2
Craftsman	-0.4	-0.3	-0.2
Operatives	-0.5	-0.3	-0.2
Laborers	-0.8	-0.4	-0.4
Service Workers	-0.2	-0.1	-0.1
Not Working	-0.4	-0.1	-0.3
Keeping House	-0.3	-0.1	-0.2
Student	-0.1	0.0	0.0
Retired	-0.5	-0.1	-0.4
Presence of Children:			
No Children	0.1	0.1	0.0
One 6-17	0.1	-0.1	0.1
Two+ 6-17	0.2	0.0	0.2
One under 6	-0.2	-0.1	-0.1
One 6-17, One under 6	-0.3	-0.2	-0.1
One under 6, Two+ 6-17	-0.4	-0.1	-0.2
Two+ under 6	-0.3	-0.2	-0.1
One 6-17, Two+ under 6	-0.4	-0.2	-0.2
Two+ 6-17, Two+ under 6	0.2	-0.1	0.3

* "Other Music Types" is a index based on preference for types of music not directly related to SPA'82 core arts activities, including: soul/blues/rhythm and blues, big band, country-western, bluegrass, rock, mood/easy listening, folk, barbershop, and hymns/gospel.

When other factors are controlled, considerable variation still exists among education, income, age, marital status, and ethnic-racial groups. After adjustment, gender differences increase but variations among occupational categories decrease. (Education and income are likely to be the major "other" factors.)

Index of Preference for Music Forms Related to SPA'82 Core Arts Activities

The average person reports a preference for about one type of music among the classical/chamber, opera, operettas/musicals/show tunes, and jazz categories. However, better educated persons, wealthier persons, and professionals tend to express a greater range of preference for these music forms.

Education remains the strongest predictor among the ten factors after controlling for the influence of other variables. While the variation drops markedly between income groups, income still has some explanatory power. Other factors, possibly differential income and education, reduce most of the variation among ethnic and occupational groups.

Index of Preference for Other Types of Music

The average person reports preferences for about three of the nine additional types of music: soul/blues/rhythm and blues, big band, country-western, bluegrass, rock, mood/easy listening, folk, barbershop, or hymns/gospel. Higher income persons, better educated persons, upper-level white collar workers, those working longer hours, and divorced persons are most likely to prefer a wider range of these types of music.

Most of the variation by marital status, income, and presence of children is attributable to the impact of other factors. The variations within occupation and ethnic groups are also reduced by holding other factors constant, but clear distinctions remain. Better educated persons and older persons tend to prefer more of these types of music after adjusting for the influence of other factors. Age and education may also account for some of the initial variations in background factors (before adjustment).

Table 9.7: MCA-Adjusted Music Preference Indices by Background Factors: Percentages of Respondents Above or Below the Grand Mean

	All Music	Classical, Opera, Operetta/ Musicals/ Show Tunes, Jazz	Other Music Types*
Grand Mean:	3.9%	0.9%	3.0%
Income:			
Under $5,000	-0.1	-0.1	0.0
$5,000 - $9,999	-0.1	0.0	-0.1
$10,000 - $14,999	0.0	0.0	0.0
$15,000 - $24,999	-0.1	0.0	-0.1
$25,000 - $45,999	0.1	0.0	0.1
$50,000 and over	0.8	0.5	0.3
Not ascertained	-0.1	0.0	0.0
SMSA:			
Central city of SMSA	0.1	0.1	0.0
SMSA, not central city	-0.1	0.0	-0.1
Not in SMSA	0.0	-0.1	0.1
Age:			
18 - 24	-0.6	-0.3	-0.3
25 - 34	-0.2	-0.1	-0.1
35 - 44	0.0	0.0	0.0
45 - 54	0.4	0.2	0.2
55 - 64	0.5	0.2	0.2
65 - 74	0.5	0.2	0.3
75 - 96	-0.2	0.1	-0.4
Marital Status:			
Married	-0.1	0.0	0.0
Widowed	-0.1	0.0	-0.1
Divorced	0.6	0.2	0.4
Separated	-0.1	-0.1	0.0
Never married	0.1	0.1	0.0
Ethnic-Race:			
White, other origin	0.1	0.0	0.1
White, British Isles	0.2	0.0	0.2
White, W. Europe	0.1	0.0	0.1
White, E. Europe	0.1	0.2	-0.1
Hispanic	-0.5	0.0	-0.5
Black (ex. Hispanic)	-0.5	0.0	-0.5
Other races	-0.9	-0.1	-0.9
White (unknown origin)	-0.2	-0.2	0.0
Sex:			
Male	-0.3	-0.1	-0.1
Female	0.2	0.1	0.1
Education:			
Grade School	-1.4	-0.6	-0.8
Attended High School	-0.7	-0.4	-0.3
High School Graduate	-0.1	-0.1	0.0
Attended College	0.6	0.3	0.4
College Graduate	0.8	0.5	0.3
Attended Grad School	1.0	0.7	0.3
Work Hours:			
None	0.2	0.0	0.2
1 to 29	-0.2	0.0	-0.2
30 to 39	-0.4	-0.1	-0.3
40 hrs	-0.3	0.0	-0.2
41 to 49	0.2	0.1	0.1
50 or more	0.2	0.1	0.1
Occupation:			
Professional	0.7	0.2	0.5
Managerial	0.3	0.1	0.3
Sales, Clerical	0.2	0.0	0.2
Craftsman	0.0	-0.1	0.0
Operatives	0.2	0.0	0.2
Laborers	-0.2	-0.1	-0.1
Service Workers	0.2	0.0	0.2
Not Working	-0.3	0.0	-0.3
Keeping House	-0.5	-0.1	-0.4
Student	-0.2	0.0	-0.2
Retired	-0.3	0.0	-0.3
Presence of Children:			
No Children	0.0	0.0	0.0
One 6-11	0.0	-0.1	0.0
Two+ 6-11	0.2	0.0	0.2
One under 6	0.0	0.0	0.0
One 6-11, One under 6	0.0	-0.1	0.0
One under 6, Two+ 6-11	-0.1	0.0	-0.1
Two+ under 6	-0.1	-0.1	0.0
One 6-11, Two+ under 6	-0.1	0.0	-0.1
Two+ 6-11, Two+ under 6	0.4	0.0	0.4

* "Other Music Types" is a index based on preference for types of music not directly related to SPA'82 core arts activities, including: soul/blues/rhythm and blues, big band, country-western, bluegrass, rock, mood/easy listening, folk, barbershop, and hymns/gospel.

5) ARTS PARTICIPATION AND MUSIC PREFERENCE

Music preferences can be considered another element of life-style which may predict arts-related behavior. Enjoyment of a particular form of music may reflect a way of life, possibly including attendance at one or more of the arts events.

The correlations, which are presented in Table 9.8 indicate the strength and direction of the relationship between music preferences and attendance at one of the arts events. Correlations of 0.30 - 0.39 will be termed substantial; correlations of 0.20 - 0.29 moderate; correlations of less than 0.20 weak.

Not surprisingly, those respondents who claimed a musical preference for either of the four types of music related to SPA'82 core arts activities are more likely to attend performances of those music forms. A listening preference for jazz or classical/chamber music has a substantial relationship with attending, respectively, jazz or classical music performances. Similarly, those preferring to listen to operettas/musicals/show tunes or operas are also more likely to attend performances of those same types of music.

Generally, preferences for the other nine types of music have only weak positive relationships with participation in the arts. The music preferences which serve as moderate correlates of arts attendance are as follows: a preference for soul/blues/rhythm and blues and attending jazz performances; a preference for opera or operettas/musicals/show tunes and attending classical/chamber music concerts; a preference for jazz and attending art museums; a preference for classical/chamber music or operettas/musicals/show tunes and attending plays and art museums; and a preference for classical/chamber music, operettas/musicals/show tunes or mood/easy listening music and reading. Thus, while music preferences can predict participation in the arts, the best predictors are preferences for the four music forms related to arts activities measured in core SPA'82 questions. Of the other nine forms, only soul/blues/rhythm and blues and mood/easy listening music are associated with arts attendance (or reading). In fact, two popular forms of music -- country-western and hymns/gospel -- have a negative association with attending several types of arts performances.

At the same time, preferences for classical/chamber music and for operettas/musicals/show tunes correlate rather well with participation in most of non-musical art forms -- such as attending stage plays, visiting art galleries and museums and reading novels, short stories, poetry and plays. And the implications of these rather low correlations in Table 9.8 can be seen in different perspectives in Table 9.8a, which shows the different "odds ratios" between music preference and arts participation. Thus the 6.0 figure in Table 9.8a indicates that respondents who like classical music are six times more likely to have attended a classical/chamber music performance than respondents who do not like classical music. Many of the ratios in Table 9.8a are greater than 2.0, meaning that these music preferences are associated with more than twice the rates of arts participation among individuals without such music preferences.

Table 9.8: Correlations between Music Preferences and Participation in Core Arts Activities

	Arts Participation							
	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Reading
Like:								
Classical/Chamber	.119	$\boxed{.311}$	.133	.187	.206	.170	.293	.253
Opera	.059	.233	$\boxed{.250}$	.131	.152	.127	.166	.138
Operettas/Musicals/ Show Tunes	.126	.252	.133	$\boxed{.269}$	.237	.168	.251	.266
Jazz	$\boxed{.315}$	.150	.060	.122	.146	.088	.200	.177
Soul/Blues/Rhythm and Blues	.210	.096	.026	.090	.104	.081	.152	.131
Big Bands	.088	.138	.056	.123	.125	.052	.167	.183
Country-Western	-.063	-.073	-.064	-.056	-.059	-.030	-.060	-.020
Bluegrass	.052	.060	.003	.019	.049	.026	.057	.057
Rock	.135	.015	-.012	.025	.055	.054	.096	.121
Mood/Easy Listening	.061	.113	.027	.147	.100	.064	.144	.269
Folk	.062	.149	.049	.126	.140	.096	.181	.171
Barbershop	.028	.111	.041	.081	.071	.026	.071	.058
Hymns/Gospel	-.013	.043	.000	-.009	-.028	-.015	-.001	-.011

* _r_ values for ballet are low due, in part, to the small sample size involved, as is true for opera.

Table 9.8a: Odds-Ratios Relationship between Music Preferences and Participation in Core Arts Activities

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Reading
Classical/Chamber	2.5	6.0+	5.5	2.4	3.2	5.4	3.7	2.2-
Opera	1.9	3.5+	13.6	2.1	2.6	3.6	2.3	2.0
Operettas/Musicals/ Show Tunes	7.3	4.0	5.6	3.3	3.8	5.0	2.8	2.6
Jazz	7.1	2.4	3.1+	1.7	2.3	2.3	2.0	1.7
Soul/Blues/Rhythm and Blues	3.7+	1.7	1.8	1.6	1.9	2.1	1.8	1.5-
Big band	1.8	7.3+	2.6+	1.8	2.1	1.8	1.9	1.6-
Country-Western	.8	.7	.5	.8	.7	.7	.8	1.0
Bluegrass	1.5	1.5	1.3	1.3	1.4	1.3	1.4	1.2
Rock	2.5+	1.2	.9-	1.1	1.3	1.5	1.5	1.4
Mood/Easy Listening	1.5-	2.1	1.6-	2.2	2.1	1.9	1.9	1.9
Folk	1.7-	2.6+	2.2	2.0	2.4	2.7+	2.1	1.7-
Barbershop	1.3-	2.1+	2.2+	1.7	1.8	1.6	1.5	1.7
Hymns/Gospel	.9	1.3+	1.0	1.0	.9	.9	1.0	1.0

The strength of the relationships between musical preferences for jazz, classical/chamber music, opera, and operettas/musicals/show tunes and attending performances of the respective art forms is represented in still another fashion in Table 9.9. This table highlights the four relationships in Tables 9.8 and 9.8a that most directly focus on music preference and behavior, by presenting the percentage of those who expressed a music preference and also attended a live performance of the same type of music. In each case, those who reported enjoying a particular type of music are at least three times more likely than those not expressing such a preference to attend a performance. As one would expect, a particular listening preference is strongly associated with attending a performance of that type of music.

Table 9.10 shows the same relationship after the effects of ten of the respondents' background characteristics have been statistically controlled. (The ten background variables are income, age, SMSA location, ethnicity-race, number of children, sex, occupation, marital status, education, and work hours.) While some of the variation in attendance is attributable to the influence of these background factors, most of the variation in musical preference remains clearly independent of these characteristics. A preference for a particular music form continues to be associated with attendance of performances of the same type of music.

Table 9.9: Music Preferences and Attendance Patterns:
Percentages of Respondents Reporting a Music Preference
Who Attend Performances of the Same Type of Music

	Attended Once in Past 12 Months			
	Jazz	Classical Music	Opera	Musicals
Like Same Type of Music:				
No	4%	5%	1%	12%
Yes	27%	31%	15%	40%

Table 9.7C: MCA-Adjusted Music Preferences and Attendance Patterns: Percentages of Respondents Reporting a Music Preference Who Attended Performances of the Same Type of Music*

	Jazz	Classical Music	Opera	Musicals
Like Same Type of Music:				
No	5%	7%	1%	15%
Yes	24%	26%	14%	32%

* Background factors are income, age, SMSA, ethnicity and race, number of children, sex, employment status, marital status, education, and number of work hours.

6) INDICES OF MUSIC PREFERENCE AND ARTS PARTICIPATION

The correlations between each of the thirteen music preferences and participation in the arts suggest that preferences for jazz, opera, classical music, and operettas/musicals/show tunes are the best correlates of participation. We can expect that the number of preferences for such music may also be a strong predictor of participation in the arts. In other words, the more of these music preferences reported by a respondent, the stronger the relationship with participation in the arts.

Tables 9.11 and 9.12 present the data relevant to this hypothesis. The first index represents the number of preferences for jazz, opera, classical/chamber music and operettas/musicals/show tunes. A second index provides a contrast with an index of preferences for the nine other types of music studied in the survey. Table 9.11 shows the associations between these two indices and participation in the arts.

Table 9.12 shows the same associations after the influence of background characteristics has been statistically removed. The first table reveals the strength of the indices as correlates, while the second table suggests the strength of the indices as predictors independent of background factors.

In every case in Table 9.11, the index of listening preferences for jazz, opera, classical music, and operettas/musicals/show tunes has a relatively strong, positive relationship with participating in the arts. That is, respondents who prefer to listen to more of these types of music are also much more likely to participate in the arts. Moreover, this index generally correlates more clearly with arts participation than does the second index of other music preferences.

Table 9.11: Arts Participation by Two Music Preference Indices: Percentages of Respondents Above or Below the Grand Mean

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Arts Participation Index**
Grand Mean:	9.8%	12.3%	2.4%	18.5%	11.4%	4.2%	22.5%	0.83
Classical, Opera, Operetta/ Musicals/ Show Tunes, Jazz								
0	-6.6	-8.9	-1.9	-9.3	-6.9	-3.0	-13.3	-0.50
1	2.5	-1.5	-1.1	2.5	1.0	-0.7	5.1	0.08
2	8.8	15.6	2.0	12.8	8.9	4.9	19.2	0.74
3	13.6	24.7	5.0	23.1	18.4	8.0	26.7	1.17
4	19.4	32.4	17.5	23.5	23.8	13.7	33.8	1.65
Other Music Preferences*:								
0	-3.1	-2.9	0.9	-7.1	-4.8	-1.6	-10.3	-0.30
1	-5.3	-6.1	-0.7	-8.0	-5.1	-1.6	-11.0	-0.39
2	-1.1	-2.7	-0.7	-1.4	-2.0	-1.2	-4.5	-0.13
3	-1.2	-0.6	-0.8	-0.2	0.1	-0.6	1.7	0.00
4	3.1	2.7	-0.7	3.9	2.5	1.7	7.7	0.20
5	3.5	2.9	1.9	8.0	2.6	3.0	7.9	0.32
6	4.5	5.1	0.9	7.0	4.0	1.9	10.3	0.37
7	9.5	15.3	2.2	9.7	12.6	2.9	14.0	0.62
8	9.1	16.3	3.5	10.5	15.3	1.8	22.7	0.74
9	12.4	16.7	4.7	16.7	8.1	7.1	18.0	0.79

Notes: * "Other Music Preferences" is an index based on preferences for types of music not directly related to SPA'82 core arts activities, including: soul/blues/rhythm and blues, big band, country-western, bluegrass, rock, mood/easy listening, folk, barbershop, and hymns/gospel

** Participation index is based on a count of recent attendences at jazz, classical music, opera, musicals, plays, ballet and art museums, but excludes reading.

Table 9.72 indicates that when background factors are controlled, the variation is reduced -- sometimes by as much as half; however, the relationship between a greater number of preferences for music forms and participation in the arts remains strong and positive. This index of preferences for "serious" music is thus a useful predictor of arts attendance, independent of the effects of background characteristics.

On the other hand, when background variables are held constant, the relationship between the second index ("other music preferences") and participation in the arts largely disappears and, in fact, usually reverses direction. Consequently, a greater number of other music preferences does not predict higher rates of art participation, but often predicts lesser arts participation once background factors are controlled.

Table 9.12: MCA-Adjusted Arts Participation by Two Music Preference Indices: Percentages of Respondents Above or Below the Grand Mean

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Arts Participation Index**
Grand Mean:	9.8%	12.3%	2.4%	18.5%	11.4%	4.2%	22.5%	0.83
Classical, Opera, Operettas/ Musicals/ Show Tunes, Jazz								
0	-4.9	-8.9	-1.8	-5.4	-3.9	-2.0	-8.5	-0.50
1	1.2	-1.5	-1.1	1.2	0.5	-1.1	3.3	0.06
2	6.7	15.6	1.8	7.3	4.4	3.6	12.7	0.73
3	11.2	24.7	4.7	14.2	11.1	5.8	16.4	1.78
4	16.1	32.4	17.6	14.1	14.7	11.8	21.2	1.72
Other Music Preferences*:								
0	1.1	-2.9	2.4	-1.4	-0.1	0.3	-2.3	0.05
1	-1.9	-6.1	1.0	-2.0	-0.6	0.7	-2.9	-0.11
2	0.1	-2.7	0.2	1.5	0.2	-0.1	-1.1	0.04
3	-0.7	-0.6	-0.3	-0.0	0.2	-0.5	1.9	0.07
4	1.4	2.7	-1.3	0.5	-0.1	0.7	3.5	0.09
5	1.0	2.9	1.0	3.2	-0.8	1.5	1.6	0.07
6	-0.3	5.1	-1.1	-0.5	-1.7	-0.8	0.2	-0.02
7	3.8	15.3	-1.8	-0.9	4.4	-1.3	0.4	-0.02
8	0.1	16.3	-3.5	-5.1	2.7	-5.2	3.0	-0.25
9	1.4	16.7	-4.0	2.3	-4.3	-1.1	-1.6	-0.31

* "Other Music Preferences" is an index based on preferences for types of music not directly related to SPA'82 core arts activities, including: soul/blues/rhythm and blues, big band, country-western, bluegrass, rock, mood/easy listening, folk, barbershop, and hymns/gospel

** Participation index is based on a count of recent attendances at jazz, classical music, opera, musicals, plays, ballet and art museums, but excludes reading.

SUMMARY

The focus in this chapter has been on music preference as an indicator of arts participation patterns. The analysis has provided several findings about the extent and nature of musical preferences among U.S. adults. The extent of preferences among thirteen types of music varies greatly, ranging from an estimated 96 million adults who said they like country-western music to about 16 million who said they like opera. Moreover, preference for favorite music forms differs by social background factors, particularly education, age, and income. For example, rock music is most preferred among the college educated, the young, members of middle income households, and males; on the other hand, hymns/gospel music tend to be preferred by the less educated, older persons, members of lower income households and females.

Music preferences tend to cluster along three dimensions, which can be categorized as deriving from traditions of either classical European music such as classical/chamber, opera, jazz or operettas/musicals/show tunes, white American folk, or black American folk. Those persons with a college education, a higher household income, or a professional occupation tend to enjoy more types of music in general, including most types studied in this study.

While preference for four music forms related to core arts activities tends to predict greater arts participation, after other background and music preference factors are controlled, preferences for the other nine forms of music are poor predictors of participation in the arts.

Chapter 10

OVERALL PREDICTORS OF ARTS PARTICIPATION

In previous chapters, we have separately examined the relationships of each of five different sets of SPA'82 rotating questions (on arts socialization, mass media art exposure, music preferences, general recreational activities, and arts-related recreational activities) to core arts participation questions. Each of the five preceding analyses used Multiple Classification Analysis (MCA) to relate a given set of rotating questions to core arts participation, while controlling for the influence of important demographic predictors of arts participation (e.g., education, age, and income).

However, it is also informative to study the five sets of rotating questions simultaneously. Such an overall analysis of SPA'82 survey content would permit an understanding of a given set of rotating questions (e.g., mass media participation) in the context of other rotating items. That is, it would study the relationship between each set of rotating questions and core arts participation -- while controlling for the influence of the other four sets of non-core factors (as well as for background characteristics like education and age). The overall MCA analyses described in this chapter provide such perspective.

An index was constructed for each set of rotating predictor variables in which one point was given for each type of socialization experience, for each type of appropriate media exposure in the previous year, for each appropriate music preference, for each general recreational activity in the previous year, and for each arts-related leisure activity in the previous year. As in Chapter 5 analyses, questions on general recreational activity were asked in Questions 23a-n, and refer to leisure activities largely unrelated to the arts (e.g., sports events, playing games, volunteer work). On the other hand, arts-related leisure activities were covered in Questions 24-35 and include such recreational activities as reading poetry, craft activities and art classes.

In addition to each of the five non-core predictors used as independent variables, the MCA results in this chapter are controlled for the respondents' education, income, age, gender and SMSA area. These analyses then, encompass the most important predictors of core participation in a single analysis. Because full data for all these rotating variables were available from the same respondents for only the November and December surveys, these MCA analyses are confined to only that one-sixth of the total SPA'82 sample (which includes 2,678 respondents). Moreover, the overall participation rates for these two months varied from those found in the other ten survey months (as described in Chapter 4), so the analyses will reflect slight differences in core arts participation levels.

Before examining these results, it is also important to note that the construction of these indices does not imply that the activities and preferences within them are equivalent or interchangeable units of experience. The relative influence of each variable incorporated in an index has been analyzed in the preceding chapters. The broader purpose in this final chapter is to study the relative influence of the survey's five sets of rotating variables on core arts participation, and the construction of the five indices for each rotating variable permits such an analysis. While other index groupings of questions are certainly possible and logical, these follow the groupings used in both the questionnaire and the earlier chapters of this report.

1) DIFFERENCES IN PARTICIPATION

As shown in Table 10.1, each of the rotating variables is associated with very clear differences in levels of core arts participation. Thus, respondents who listened to jazz both on radio and recordings and who watched jazz performances on television were more than 15 times more likely (46%) to attend a live jazz performance than those who used none of these three media for jazz performances (3%). The same pattern is found for classical music, for opera and for musicals -- except for the slight decline among those who used all three media for musical theatre (37%) compared to those who used two media (54%). Similarly for plays, those who both watched a TV stage play and heard a stage play on the radio were not much more likely to attend a live stage play (26%) than those who used only one of these media (24%). Those who watched ballet on television were more likely to attend a ballet performance (12%) than those who did not watch (1%), and the same was true for those who watched a TV program on the visual arts who were more likely to attend an art gallery or museum (45%) than those who did not (15%).

There are fairly large differences between those who like and those who don't like a particular form of music in terms of attending a live performance of that type of music. Thus, of those who say they like jazz music, 30% attended a live jazz performance compared to only a 4% rate among those who don't say they like jazz. For classical music, the rates were 28% vs. 5%, for opera 11% vs. 1% and for musical theatre 39% vs. 12%. Similarly, attendance at ballet performances was much higher among those who like classical music (8%) than among those who don't (1%).

Table 10.1: Rates of Participation in Core Arts Activities by Non-Core Factor Indices (November-December 1982 data only)

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums
November-December: Sample (N=2,678)	10%	11%	2%	18%	11%	3%	22%
Mass Media Exposure							
No media	3%	3%	1%	11%	6%	1%	15%
One media	14	14	4	36	24	12	45
Two media	31	26	8	54	26	NA	NA
Three + media	46	46	27	37	NA	NA	NA
High-Low	43	43	29	26	20	11	30
Music Preferences							
Don't like ____ music	4%	5%	1%	12%	NA	1%	NA
Like ____ music	30	28	11	39	NA	8	NA
High-Low	26	23	10	27	NA	7	NA
Socialization Experiences							
None	5%	4%	1%	11%	9%	1%	9%
One	10	11	2	21	28	2	21
Two	19	23	5	37	NA	12	40
Three	18	32	3	72	NA	11	62
Four	35	35	5	NA	NA	33	67
High-Low	30	31	4	61	19	32	58
General Recreation Activity*							
None	1%	0%	0%	0%	0%	0%	0%
1-3	2	2	1	3	2	0	3
4-6	5	6	1	13	6	2	11
7-9	10	11	3	24	13	4	27
10-12	20	22	3	32	20	7	43
High-Low	19	22	3	32	20	7	43
Arts-Related Leisure Activity**							
None	3%	1%	1%	6%	2%	0%	2%
1-3	8	9	2	18	9	2	18
4-6	19	24	4	34	23	7	50
7 +	29	30	8	45	33	14	71
High-Low	26	29	7	39	31	14	69

NA = No Applicable Data

* Index developed from answers to Questions 23a-n, inquiring into non-arts related leisure activities (attend movies, attend sports event, visit zoo, play games, visit amusement park, exercise, play sports, outdoor activities, read books/magazines, volunteer work, collecting, prepare gourmet meals, repair home/car and gardening).

** Index developed from answers to Questions 24-35, covering arts-related leisure activities (visit non-art museum, visit historic site, read poetry, visit arts/crafts fair, art classes, craft activities, needle crafts, backstage theatre help, backstage music concert help, creative writing, artistic photography, and painting/drawing/sculpture/printmaking).

Respondents with more extensive socialization into the arts, either through lessons and classes or through parental encouragement and example, were also progressively more likely to attend live arts performances. Thus, only 5% of respondents with no relevant socialization experiences attended a live jazz performance compared to 10% who had one such experience, 19% who had two, 18% who had three and 35% who had four such experiences (i.e., music lessons, music appreciation classes, parents who listened to classical music, parents who took them to music performances). The differences for attending classical music performances were even sharper for these four socialization experiences, increasing from 4% attendance among those with no such experiences through 35% attendance for those with all four. The differences for attending opera were much less pronounced, from 1% for those with no experience through 5% for those with all four experiences. For musical theatre, the differences were progressively much sharper: 11% with no experience through 72% for all three relevant experiences (took music lessons, took acting lessons, parents took to theatre performances). If respondents reported that their parents had taken them to live theatre performances, the likelihood of attending stage plays was 28%; if not it was only 9%. If one had five relevant socialization experiences, the likelihood of attending ballet was 33%, compared to only 1% attendance rates among those with no such experiences. And among respondents who had four relevant socialization experiences (lessons in the visual arts, craft-art lessons, art appreciation classes, parents took to art museums), the proportion attending art galleries and museums was 67%, compared to 62% of those with three experiences, 40% with two, 21% with one and only 9% with no such experiences.

Respondents who were more active in recreation activities generally (e.g., movies, sports, reading) were also more likely to attend arts performances. Some 20% of those who said they participated in 10 or more such activities had gone to a live jazz performance compared to 10% of those who had participated in 7 to 9 such activities, 5% of those who had participated in 4 to 6 recreation activities, 2% who had done 1 to 3 activities and 1% who had done none of them; that represented a 19 percentage point differential between the attendance rates of those who had done 10 or more activities (20%) and those who had done none (1%). Practically the same differential (22 percentage points) was found for attending classical music performances, with those doing ten or more recreation activities having a 22% rate of attending live classical music performances compared to a 0% attendance rate for those doing no general recreation activities. This differential was smallest for attending live opera performances (3% vs. 0%), but rose to 32 points for musical theatre, 20 points for stage plays and 43 points for attending art galleries and museums; for ballet, the differential was again smaller (7% vs. 0%).

The differentials were somewhat larger for participation in arts-related recreation activities (e.g., historic sites, poetry readings). Those who participated in seven or more such activities attended jazz performances at a 29% rate compared to only a 3% rate among those who participated in none. The high-low group differential was 29 points for classical music, 7 points for opera, 39 points for musical theatre, 31 points for stage plays, 14 points for ballet and 69 points for art galleries and museums. For each art form, then, the high-low differential was greater for participation in arts-related recreation activities then for general recreation activities.

Before adjustment, then, each of these rotating factors were associated with roughly equivalent differentials of arts participation, with arts socialization, arts-related lessons and mass media exposure showing slightly stronger differentials than general recreation activities and appropriate music preferences.

After MCA adjustment for these and demographic factors, however, most of the differentials in Table 10.1 were markedly reduced, by at least half on the average. These adjusted figures are shown in Table 10.2. In the case of attending live jazz performances, for example, the high-low differential for mass media arts exposure after MCA adjustment was 28 points (that is 34% attendance for the three media groups vs. 6% for the no media group), compared to 43 points before adjustment. This is still higher, however, than the 18 point after-adjustment figure for socialization experiences, the 13 point figure for music preferences, the 9 point figure for arts-related leisure, and the 2 point figure for general recreation activities.

Media arts exposure was again associated with the largest after-adjustment differentials for classical music -- 26 points vs. 20 points for socialization experiences and less than 10 points for the other three factors. The same is true for attending opera, where the 24 point differential for opera is the only differential greater than 5 points.

Table 10.2: MCA-Adjusted Rates of Participation in Core Arts Activities by Non-Core Factor Indices*

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums
November-December: Sample (N=2,678)	10%	11%	2%	18%	11%	3%	22%
Mass Media Exposure							
No media	6%	6%	1%	15%	8%	2%	19%
One media	9	10	2	26	17	8	29
Two media	18	18	6	38	12	NA	NA
Three + media	34	32	25	20	NA	NA	NA
High-Low	28	26	24	5	4	6	10
Music Preferences							
Don't like ____ music	6%	8%	2%	16%	NA	3%	NA
Like ____ music	19	15	5	26	NA	4	NA
High-Low	13	7	3	10		1	
General Recreation Activity							
None	10%	9%	0%	9%	7%	2%	16%
1-3	9	8	1	10	8	2	16
4-6	7	8	2	15	8	2	17
7-9	8	9	3	21	11	3	23
10-12	12	15	2	25	14	5	28
High-Low	2	6	2	16	7	3	12
Arts-Related Leisure Activity							
None	7%	8%	2%	16%	7%	3%	11%
1-3	8	9	2	17	9	2	18
4-6	14	16	2	22	16	4	39
7 or more	16	13	6	28	23	9	54
High-Low	9	5	4	12	16	6	43
Socialization Experiences							
None	9%	9%	2%	18%	10%	3%	18%
One	8	10	2	17	15	1	19
Two	9	11	3	21	NA	8	24
Three	10	17	1	47	NA	8	38
Four	27	29	2	NA	NA	29	36
High-Low	18	20	0	29	5	26	18

* Adjusted for respondent education, age, urbanicity, income and gender.

With regard to attending live musical theatre, however, it is the three socialization factors that are associated with the largest differentials in attendance (29 points), followed by general recreation factors (16 points), arts-related leisure (12 points), music preference (10 points) and mass media exposure (5 points); however, if the two and three media groups were combined, that differential would rise to 17 points, given the small sample size for the three media group. The media differentials are again smaller for attending stage plays (4 points); the major factor here being arts-related leisure activities (16 points).

Socialization experiences are again the major factor associated with higher attendance at ballet performances (26 points), with media exposure (6 points) and arts-related leisure (6 points) being next most important.

Finally, with regard to attendance at art galleries and museums, it is the arts-related leisure activity index that is associated with the greatest differential in attendance (43 points) compared to 18 points for the socialization factor, 12 points for general recreation activities, and 10 points for exposure to TV programs dealing with the visual arts.

In general, then, the greatest differentials across activities in Table 10.2 are found for mass media, socialization and arts-related leisure. However, these factors vary widely from art form to art form and are often affected by small sample sizes. In order to smooth out some of these variations, then, an MCA analysis was run on the general index of arts participation, in which respondents were given one point for each type of arts performance attended.

2) DIFFERENCES IN THE ARTS PARTICIPATION INDEX

As described in earlier chapters, the overall average score on the core participation index was 0.83 out of a possible 7.00 activities. Table 10.3 shows the variations in this index score for high and low index scores for each of the five rotating variables. These are:

1) Mass Media Use: The simple sum of all media items (weighted by 1.5 for stage plays because there were only two media items and by 3.0 for ballet and visual arts for which only TV exposure was ascertained).

2) Arts-Related Music Preferences: Namely the sum of the four types of music related to core arts activities studied in the survey -- jazz, classical music, opera and musicals.

3) General Recreation Activities: As measured in Table 10.1, one point is given for each activity.

4) Arts-Related Leisure Activities: As measured in Table 10.1, one point is given for each activity.

5) Socialization Experiences: One point is given for each experience.

The first column in Table 10.3 shows the unadjusted differences. As in Table 10.1 and 10.2, the major differentials are found for mass media exposure (2.64 points), arts-related recreation (2.33) and socialization experience (2.22), followed by arts music preferences (1.91) and general recreational activities (1.28). In general, each of the categories on each of the scales is associated with fairly equal increments of arts attendance from low levels on the scale to high levels.

When adjusted for the other rotating factors (and demographic factors), however, this pattern again changes dramatically. First, as in Table 10.2, all of the differentials are markedly reduced, by almost two-thirds overall. Secondly, this reduction affects some rotating factors more than others -- for example, music preference, general recreation and socialization. Thirdly, many of the differences by each incremental step across categories are no longer found, with some reversals being found -- as is the case of four (.95) vs. three (1.05) preferences for arts music,

Table 10.3: Arts Participation Indices by Non-Core Factors, Before and After MCA Adjustment

	Unadjusted	Adjusted
Grand Mean:	0.83	0.83
Mass Media Exposure		
None	.20	.57
1-3	.68	.67
4-6	1.32	.94
7-9	1.98	1.31
10 +	2.84	1.90
High-Low	2.64	1.43
Music Preferences		
None	.31	.66
One	.91	.80
Two	1.44	.98
Three	1.97	1.05
Four	2.22	.95
High-Low	1.91	.29
General Recreation Activities		
None	.00	.60
1-3	.11	.57
4-6	.44	.64
7-9	1.28	.90
10-14	--	--
High-Low	1.28	.30
Arts-Related Recreation Activities		
None	.15	.57
1-3	.66	.69
4-6	1.60	1.11
7-12	2.48	1.55
High-Low	2.33	.98
Socialization Experiences		
None	.19	.77
One	.46	.72
Two	.62	.64
Three	.78	.65
Four	1.07	.71
Five	1.52	.92
Six	1.82	1.02
Seven	2.05	1.06
Eight or more	2.41	1.13
High-Low	2.22	.36

or no (.77) vs. one to four socialization experiences (.64 to .72).

The two factors that emerge in the MCA analysis in Table 10.3, then, are arts exposure via the mass media and arts-related leisure. For both variables, increases in each category on the variable are associated with progressive increases in arts participation. The differential for mass media exposure (1.43 points) is sharper than for arts leisure, however, with the 1.90 participation index score for the 10+ media exposure group being the highest found in Table 10.3, and the .57 score for the no media group being the lowest in Table 10.3.

Mass media exposure, then, emerges from these analyses as the most important factor in terms of predicting overall arts participation. In context, however, these differences remain far lower than for the demographic factor of education, but at about the same level as the demographic factors of age, gender, and urbanicity.

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APPENDIX A

FURTHER SURVEY DOCUMENTATION AND BACKGROUND ON SURVEY METHODOLOGY

DATA COLLECTION

The Demographic Surveys Division of the Bureau of the Census has been conducting monthly surveys of households throughout the United States to inquire about personal experiences. Since July 1972, this national sample consists of a panel of 72,000 households visited twice a year for three years, with new units replacing expired ones at the end of that period. Interviewing takes place each month at approximately 10,000 households, of which about one-seventh were included in the Survey of Public Participation in the Arts (SPA). Thus, one-seventh of the roughly 14,000 households in this larger survey (or about 2,000) were assigned households from which 1500 households were interviewed after elimination of Type A, B, and C noninterviews (described in Chapter 2).

I. SAMPLE

Design

The national sample for the larger survey includes persons living in households and group quarters. Persons who are crews of vessels, in institutions or members of the armed forces living in military barracks are excluded from the survey. The sample design is a stratified multi-stage cluster sample. The primary sampling units (PSU's) were formed from counties or groups of contiguous counties using every county in the coterminous United States, Alaska and Hawaii. These 1,931 PSU's are identical to those formed for the Current Population Survey (CPS) conducted by the U.S. Bureau of the Census.

Stratification

These 1,931 PSU's were grouped into 376 strata. One hundred and fifty-six of the strata consist of only one PSU and these types of PSU's are called self-representing (SR). The remaining 220 strata were formed by combining PSU's with similar characteristics, such as geographic region, population density, rate of growth in the 1960-1970 decade, proportion nonwhite, principal industry, number of farms, retail sales per capita, etc. These characteristics were selected because they showed a strong relationship to crime victimization data. The strata were formed so that their 1970 population sizes were approximately equal. From these 220 strata, one PSU was selected per stratum with probability proportionate to the size of the PSU. These PSU's are called non-self representing (NSR). The 376 PSU's selected comprised the first stage of sampling.

The objective of the remaining stages of sampling was to obtain a self-weighting probability sample of 72,000 households. Self-weighting means that all sample units have the same initial probability of selection. The 72,000 households were divided into six groups of panels, each of which were interviewed in a given month and later at six month intervals. This sample yielded approximately 60,000 interviewed households in each six month period. The remaining 12,000 sample households were not interviewed because the occupants were not at home or were unavailable for other reasons (i.e., the sample units were vacant, demolished, or otherwise not able to be interviewed).

Rate and Interval

The rate of sampling within each PSU was determined in such a way that the overall sampling rate for each household is the same. Initially, the overall sampling rate was approximately 985. This overall rate was modified over time so that the size of the sample was held relatively constant despite the overall growth of the population. The sample of households within a PSU was selected in two stages. The first stage involved the selection of enumeration districts (ED's), geographic areas used for the 1970 Census that are usually well defined boundaries and contain, on the average, about 300 households. The ED's were selected systematically from a geographically arranged listing, so that the sample ED's were spread over the entire PSU. The ED's were selected with probabilities proportionate to their 1970 population sizes.

The next stage involved the subdivision of each selected ED into segments or clusters of about four housing units and the selection of a sample of these segments. When possible, the clusters were formed from the list of addresses compiled during the 1970 Census. If the list of addresses was incomplete or inaccurate, area sampling methods were used. The address lists were used in about two-thirds of the ED's, these being in primarily urban areas. Area sampling was then applied to the remaining ED's.

Units built after the 1970 Census was conducted which were not included in the above sampling process were sampled primarily from a list of new construction building permits issued from permit issuing offices in the areas. The resulting sample of new construction units is a small part of the total sample but increased as the decade progressed. In addition, units in group quarters such as dormitories or boarding houses known as "special places" were also selected in special place segments. These are also a small part of the total sample.

Rotation

A rotation scheme is used for the national sample. The sample of 72,000 households was divided into six groups or rotations. Once the rotation was fully operative, households in each rotation group were interviewed once every six months for three years. The initial interview served the purpose of establishing a time frame for avoiding recording duplicative reports on subsequent visits. Additional samples of 72,000 households selected in the above manner were assigned to six rotation groups for subsequent rotation into the sample. One rotation group entered the sample every six months and the corresponding rotation group from a previous sample was phased out.

The assignments of rotation group numbers and panel numbers to the 72,000 sample housing units were made to complete segments of housing units with three objectives: 1) each rotation group should be a systematic one-sixth sample of the 72,000 housing units as well as a one-sixth sample of the sample interviewed each month; 2) each panel would provide a systematic one-sixth sample of the 72,000 housing units; and 3) it would be possible to combine rotation groups and panels to form sub-samples for variance estimation purposes.

IMPLEMENTATION PROCEDURES

Coverage

The implementation of the sample in the field is concerned with locating units designated for the sample and identifying all persons living in the sample unit. This is called the "coverage of the survey." Sample units are located in various types of segments, depending upon the type of ED in which the segment is located. In the omnibus national sample there were five types of segments:

(1) "Address segments" consist of addresses selected from the Decennial Census lists. Usually four housing units are designated for interview in a particular omnibus survey segment in any one month. Interviewers list the units at an address the first time it is visited for interview and update the listing at regular intervals. omnibus survey sample lines are predesignated on the listing sheet. The listing is completed before any units are interviewed.

(2) "Area segments" consist of geographic areas designated within area segment ED's. A map is provided on which the segment is delineated by well defined boundaries. Units in the segments are prelisted and omnibus survey sample units are selected prior to the time of the interview; area segments are updated at regular intervals prior to the interview visit.

(3) "Permit segments" consist of addresses selected from a sample of building permits issued for new construction. These segments represent new construction in areas covered by address segments.

(4) "Special place segments" consist of special places in the address segment ED's which can be identified from Census listings. These

include housing units and other units such as boarding houses, where unrelated persons share common facilities. These places were called "group quarters" in the Census. In large special places, units are prelisted and sampled prior to interview. All special places are updated at regular intervals.

(5) "Cen-sup segments" consist of addresses which were inadequately identified or unreported in the Census. These segments are handled like address segments except that sample units may be recycled for a later omnibus survey sample.

There are a number of procedures designed to obtain complete and accurate coverage. In address, permit, Cen-sup, and special place segments, interviewers list units by observation, by canvassing the structure and/or by inquiry. The listing is then verified or corrected by a knowledgeable person such as a building manager. In area segments, the listing is done by observation and inquiries are done only when the number or location of units cannot be observed. The listing in area segments is supplemented by coverage questions, which are asked during the first and fourth interviews to identify extra units at sample addresses. An unbiased procedure is used for allocating extra units to sample. Sometimes after the original listing, two or more units may merge to form one unit. If the units involved are not in the same general survey sample, an unbiased procedure is used to allocate the merger to an appropriate sample.

For coverage of persons, a control card is filled out on the first interview visit for each sample unit and this is updated on subsequent visits by a series of probe questions. A list is made of all persons living or staying in a unit, and through a series of questions, those who are considered to be household members are identified.

Interviewers are unable to obtain interviews at 3 to 4 percent of the occupied units in a sample in any given month. These are classified as Type A noninterviews and a noninterview adjustment is applied so that units are representative in the sample. In addition, some units selected for a sample are vacant or otherwise not eligible for interview. Those units which might be occupied in the future are revisited while the unit is in sample. These are called Type B noninterviews. If the unit becomes occupied, the household members are interviewed. Units which are demolished, converted to non-residential use or otherwise out of sample for the larger survey are dropped from the sample. These are called Type C noninterviews. The sample size is sufficiently large to compensate for Type B and C noninterviews.

II. SAMPLING ERRORS

Estimation Procedure

The distribution of the sample usually differs somewhat from the distribution of the universe in terms of characteristics such as age, race, sex, and residence. These characteristics are closely correlated with certain measurements made from the sample. Therefore, various stages of ratio estimation are employed to bring the distribution of the sample into closer agreement with the universe distribution, as known through independent auxiliary data, thus reducing the variability of the sample estimates. Two stages of ratio estimation are employed to estimate personal characteristics; and these two stages, plus a third stage, are employed. The ratio estimation takes the form of multiplying the sample estimate of the characteristic by the ratio of the best independent estimate of the total population to the sample estimate of the total population.

III. DATA COLLECTION

Questionnaire

Three basic forms are used to collect the required data for the national sample for the larger survey. These forms are the survey Control Card, the Basic Screen Questionnaire and the Crime Incident Report.

The Control Card is the Basic Record of each sample unit and constitutes a permanent record as long as it is in the sample. It contains the address of each sample unit and the basic household data, such as the names of all the persons living in the household, their age, sex, marital status and education. In addition, such items as family income and tenure of the unit are also included on the Control Card. The Control Card also serves as a record of visits, telephone calls, interviews, non-interview reasons, and the discovery of extra housing units. It is the first form the interviewer completes during an interview and is updated on each subsequent visit.

The Basic Screen Questionnaire is used for all sample units to obtain characteristics of the household members 12 years of age or older, as well as to screen for related to behavioral incidents experienced by household members.

After such incidents have been reported in the Basic Screen Questionnaire, the respondents are questioned about the details using the Incident Report. One Incident Report is filled out for each incident reported except in certain cases ending the last day of the month which precedes the month of the interview. The interviewer never asks about incidents that occurred during the interview month or prior to that six-month reference period.

Method

The interviewer's initial contact with a sample household is a personal visit in which the maximum number of available household members 12 years or older are interviewed at the time of that visit. In order to save time and money, interviewers are allowed to make telephone callbacks to obtain interviews with the remaining household members after the initial personal interviews.

Questions pertaining to the entire household are asked only once. Almost any adult is technically eligible to answer household questions. These questions include the Control Card items and Household Screen Questions. The interviewer is instructed to interview the most knowledgeable household member for these questions.

Household Respondent

The questions on the Basic Questionnaire which pertain to individuals are asked as many times as there are eligible household members 12 years of age or older. Information about each household member 14 years and over is obtained by self-response (each individual responds for himself). Information about each household member aged 12 and 13 is obtained by a proxy interview (questions for these persons are asked of the household respondent or some other knowledgeable household member). If a particular respondent is physically or mentally unable to answer the individual questions or if he/she is temporarily absent and not expected to return before the enumeration closeout date, a proxy interview is conducted.

Interview Sequence

In the general interview sequence for the large survey, interviewers are required to: 1) complete a Control Card for the unit, 2) ask all appropriate personal characteristics and screen questions on the Basic Screen Questionnaire, 3) complete detailed reports on the Incident Report for the household respondent in the Basic Screen Questionnaire, and 4) ask all appropriate personal characteristics and screen questions and complete the incident reports, if any, for each subsequent eligible household member. An entire interview must be completed for each household member before proceeding with the next member.

APPENDIX B

COMPARISON OF DATA FROM THE LOUIS HARRIS ORGANIZATION AND THE SPA'82 SURVEY

In March of 1984 the Louis Harris organization conducted a public opinion study, "America and the Arts," for Philip Morris, Inc. The study, which was released in October of 1984, included several questions on the public's participation in certain arts activities. These figures diverged significantly from the figures that came from the SPA'82 study conducted for the National Endowment for the Arts by the U.S. Census Bureau and the Survey Research Center of the University of Maryland. This report examines these divergences and offers several explanations for their occurrence.

Table 1 describes the basic parameters of the two studies. It can be seen first that SPA'82 had over ten times the sample size (n=17,254) of the Harris study (n=1504); SPA'82 was also conducted across the full 12 months of the year (each month being a separate national sample of about 1500 respondents), rather than the single month of March covered in the Harris survey. Most of the SPA'82 data were collected by in-person interviews conducted in the respondents' homes, rather than the completely telephone mode used in the Harris study. The sampling frame for SPA'82 included all households in the country; the Harris sample frame was by nature restricted to households with telephones, and the sampling frame apparently constructed on a quota (by region and metropolitian area) sample basis rather than being strictly random across exchanges. Nor is information given on how individuals within the selected households were chosen in the Harris study, while in SPA'82, all respondents in the household were eligible for selection.

Finally, and perhaps most importantly, the Harris study reports no overall response rate figures. Their methodological report does not report figures on how many telephone numbers were dialed, how many refusals were encountered, how may call-backs were attempted for no answers or busy signals, how many interviews were terminated in mid-course, or how many calls were made per area (or the number of areas selected). In SPA'82 the Census Bureau achieved a response rate of over 85% for every month--a rate that has not been matched by any commercial or academic survey research agency for a cross-section of the American public. Occasionally academic survey organizations, such as at the University of Michigan or the University of Chicago, reach 80% of assigned households. Most commercial organizations, and their survey sponsors, appear quite content with response rates of 50% or less.

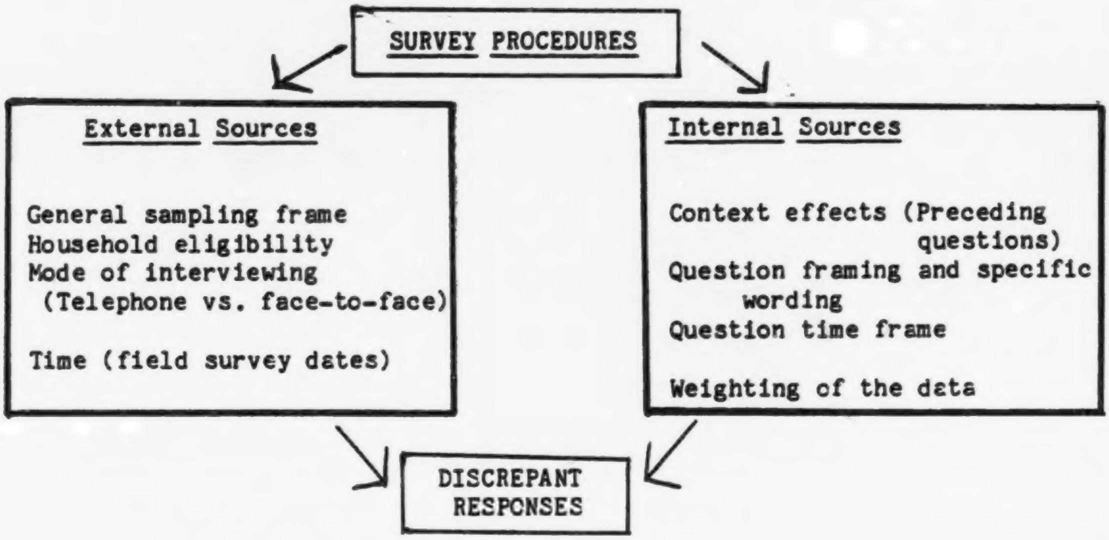
While it is not clear exactly how much of a difference each of these factors makes in the divergent results that are obtained, we will ultimately need to return to a consideration of external respondent selection procedures before making final conclusions about how to resolve the divergences that are observed. In this next section, however, we examine the more readily available evidence of another influence of certain internal sources of variation between the two surveys. These internal factors include:

1) Context effects (due to the effects of preceding questions)
2) The time-frame employed in the question
3) The wording used to frame the question
4) Demographic weights

The distinction between external and internal sources of survey variation are shown in Figure 1. To examine the above external (respondent selection) variables in more detail, we will make reference to additional studies:

1) Two recent national surveys of arts participation conducted by the Survey Research Center of the University of Maryland, and
2) A separate study of recreation behavior recently conducted by the Census Bureau and earlier by another commercial survey firm.

Figure 1: Distinction between External and Internal Sources of Survey Variations


SURVEY PROCEDURES
External Sources
General sampling frame
Household eligibility
Mode of interviewing (Telephone vs. face-to-face)
Time (field survey dates)
Internal Sources
Context effects (Preceding questions)
Question framing and specific wording
Question time frame
Weighting of the data
DISCREPANT RESPONSES

1) Context Effects

For several years, the prevailing wisdom in the survey research community was that it did not make much difference where questions were placed in a survey questionnaire or interview. Recently, several instances of the possible skewing of results that can be introduced by preceding questions have come to light (Schuman and Presser 1982; Turner and Krauss 1978). They indicate that preceding questions can sometimes seriously affect the responses that people give to later questions, particularly if some expectation or mind-set is built into these preceding survey questions. In the case of arts-related behavior, for example, prior questions that imply that respondents ought to be participating in such behavior, or that other people are participating, or that identify the purpose (or the sponsoring agency) of the study could well skew responses to the survey questions away from responses that would be obtained if no such prior questions were asked.

In the case of the Harris survey, no blatant context effects appear to be present. There are no introductory statements about the purpose of the survey or the sponsoring agency (although it is usually the case that interviewers must be prepared to give potential respondents some idea of the nature and purpose of the study if they are to secure their cooperation, and such lead-in interviewer instructions are not listed in the Harris report). However, as noted at the bottom of Table 7, there were several questions about the arts and leisure that preceded the arts-related participation questions -- related to the importance of the arts to the economy and the importance of creative activities generally to the respondent, to whether there should be more arts-related programs in their area and to whether the respondents themselves have engaged in various arts-related ac-

Table 1: Differences in Basic Survey Samples and Procedures

	Harris 1984	SPA'82
Data Collection Agency	Louis Harris and Associates, Inc.	U.S. Bureau of the Census
Sample Size	1504	17,254
Survey dates	March 5-March 15, 1984 (Using same questions asked in 1980 survey)	Jan. 2-Dec. 31, 1982
Survey method	100% telephone	75% personal, 25% telephone
Sample frame	Random digit dial from unknown (quota) frame	Based on 1970's Census
Response rate	Unknown	85-95%
Respondent selection (Within sample household)	Unknown	All residents of eligible households
Data weighting	By age, race and sex	By age, sex, and race
Preceding questions	Amount of leisure time Access to leisure facilities Importance of museums, theatres to business and economy Should be more or less (sports or arts) events given in area Importance of creative activities Reasons for not going to arts activities Do arts activities (See Table 4)	None (Lead questions)

tivities. There is the possibility, then, that these questions could create a mind-set for respondents that reporting more attendance at arts performances is what is expected in the survey. The respondent might want to report more arts activity, say, as a way of compensating for not being active in the arts in the prior quarter, or as a way of being consistent with their earlier statements of support for the arts (e.g., 83% of Harris survey respondents said it was at least somewhat important for them to have more creative activities in their community). Again these are not blatant examples of a biasing context effect, but the possibility for some such effect is very real.

In the case of SPA'82, such a possible source of prior question bias is not possible since these were the first questions asked of respondents. However, the sponsoring agency of the survey was clearly identified to respondents prior to that first question -- "The Census Bureau is collecting this information for the National Endowment for the Arts". This by itself could be a source of higher reporting since respondents now know to which organizations to give possibly compliant responses. Whether this would encourage higher responses than the Harris questions taken alone or together is not clear, although results reported below (Table 7) indicate the SPA'82 responses are not increased by the introduction. Nonetheless, for other arguments described below, context effects would not seem to be as major a source of the discrepant figures between the Harris and SPA'82 studies as other factors discussed below.

2) Question Time-Frames

As shown in Table 2, the Harris survey asked several of the attendance questions using a two-stage "filtered" approach. It first asked whether

Table 2: Art Participation Questions Employed in Harris, SPA'82 and SRC'83,'84 Surveys

Harris 1984	SPA'82 and SRC'83,'84
8a) Do you ever go to any live performances of plays, musical comedies, pantomime, or other kinds of theatre or not? 8g) (If Do Go) Approximately how many times did you go to live theatre performances in the past 12 months, not counting any performances given in connection with schools or classes?	5) (During the last 12 months), did you go to a live performance of a non-musical stage play? Do not include grade school or high school productions. 4) During the last 12 months, did you go to live musical stage play or a operetta? Do not include grade school or high school productions.
9) Popular music performances and (10a/b) buy/listen to classical music.	NOT ASKED
10c) What about live performances of classical or symphony music by orchestra, chamber groups, soloists, etc.— do you ever go to such classical music performances or not? 10d) (If Do Go) Approximately how many times did yo go to live classical music performances in the past 12 months, not counting performances given by your children in connection with schools or classes?	2) During the last 12 months, did you go to a live classical music performance? This includes choral music and instrumental or vocal recitals, as well as symphony and chamber music.
10e) What about live performances of opera or musical theater — do you ever go to live opera or musical theater performances, or not? 10f) (If Do Go) Approximately how many times did you go to live performances of opera or musical theater in the past 12 months, not counting performances given by your children in connection with school or classes?	3) During the last 12 months, did you go to a live opera? 4) During the last 12 months, did you go to a live musical stage play or an operetta? Do not include grade school or high school productions.

Harris 1984	SPA'82 and SRC'83,'84
11a) And what about dance performances do you ever go to live performances of ballet or modern dance, or folk or ethnic dance, or not?	6) During the last 12 months, did you go to a live ballet performance?
11b) Approximately how many times did you go to live performances of ballet or modern dance, or folk or ethnic dance, in the past 12 months, not counting performances given by your children in connection with school or classes?	*SRC) In the last 12 months, did you go to any other type of live dance performance, for example, modern dance, ethnic or folk dance, jazz dance, or tap dance?
13a) How many times, if any, did you visit art museums that exhibit paintings, drawings, sculpture, etc., during the past 12 months?	7) During the last 12 months, did you visit an art gallery or an art museum?
13b) And how many times did you visit science or natural history museums during the last 12 months?	24) During the last 12 months, did you visit a science museum, natural history museum, or the like?
13c) And how about history museums which preserve objects from the past--including historic buildings or sites--how many times did you visit history museums in the past 12 months?	25) During the last 12 months, did you visit an historic park or monument, or tour buildings, or neighborhoods for their historic or design value?

Harris 1984	SPA'82 and SRC'83,'84
6) Let me read you some activities that some people do at least every once in a while. Please tell me whether you yourself do each of these activities at least every once in a while, or not.	During the last 12 months...
1.Paint, draw, or engage in graphic arts such as etching	35) Did you do any painting, drawing, sculpture, or printmaking activities?
2.Make pottery or ceramics	29) Did you work with pottery, ceramics, jewelry, or do any leatherwork, metalwork, or or similar crafts?
3.Sing in a choir or other choral group	SRC) Have you taken singing lessons or done any singing for your own pleasure?
4.Do needlepoint, weaving, or other handwork	30) Did you do any weaving, crocheting, quilting, needlepoint, sewing, or similar crafts?
5.Make sculpture or work with clay	35) Did you do any painting, drawing, sculpture, or printmaking activities?
6.Write stories or poems	33) Did you work on any creative writings such as stories, poems, plays, and the like? Exclude any writing done as part of a course requirement.
7.Play a musical instrument	SRC) Have you taken music lessons or played musical instruments for your own pleasure?
8.Work with a local theater group	SRC) Have you taken any acting lessons, or done any acting for your own pleasure?
9.Engage in photography	31) Did you make photographs, movies or videotapes as an artistic activity?
10.Dance ballet or modern dance	SRC) Have you taken any dance classes or done any dancing for your own pleasure - Ballet or Modern Dance?
11.Dance folk or ethnic dance	SRC) Have you taken any dance classes or done any dancing for your own pleasure - Folk/Ethnic Dance?

*SRC = Question asked in Survey Research Center follow-up project and not in SPA'82 (see text) the respondent ever went to any such performances, and then for each "yes" response how many times the respondent had attended in the previous year. The SPA'82 question asked directly whether the respondent had gone in the last year.

No solid survey evidence seems available to show that asking a long-range "filter" question will affect response to a follow-up shorter range question. However, it would not be surprising to find that having already said that one had engaged in a (socially desirable) activity increased the likelihood of also saying one has done that activity in the shorter run. Thus, however noble the intent of the filter in sparing respondents the burden of describing an activity in which they do not engage, the second stage question may very well be affected by the process of being filtered into the short-range questions and then feeling somehow inconsistent if one says they have not done the activity in the short-run.

What is more problematic in the Harris data tabulations, however, is that both responses are reported, but the first (longer time-frame) question is the one featured in the Harris summary report as reflecting yearly participation. The two sets of Harris figures are shown in the first two columns in Table 3, along with Harris results for the 1980 survey, which are rather similar.

Thus, Harris found 67% of his 1984 respondents reporting they ever attended the theater, but 60% saying they had done so in the last year. Similarly, 60% ever went to popular music performances, but 53% last year; 35% ever went to opera or musical theater, but 28% last year; 34% ever attended dance vs. 28% last year and 34% to classical concerts vs. 29% last year. In general, then, the "ever attended" Harris figures are 5 to 7 percentage points higher than the Harris proportions reporting attendance in

Table 3: Percentages in the Harris and SPA'82 and SRC'83,'84 Surveys Reporting Attendance

	Harris 1984 (1980)		SPA'82 and SRC'83,'84
	Ever Attend	Attended last year	Attended last year
Movies	NA	78(75)	63
Live performances of plays, musical comedies, pantomime, other theater	67(65)	60(59)	23
Live popular music performances by popular singers, bands, rock groups	60(53)	53(48)	NA
Visits to art museums that exhibit paintings, drawings, sculpture	NA	58(60)	22
Live performances of opera or musical theater	35(25)	28(26)	20
Live performances of ballet or modern dance, folk or ethnic dance	34(25)	28(25)	13*
Live performances of classical or symphonic music by orchestras, chamber groups, soloists	34(26)	29(26)	13

NA=Question Not Asked

*Dance question estimates from separate questions asked in a separate 1983-84 survey by the Survey Research Center of the University of Maryland.

the last year. But this again does not account for all of the discrepancies with the SPA'82 figures.

Moreover, it does not take into account the possibility that the Harris filter may also be responsible for some of the higher yearly estimate figures. And it can be seen in Table 3 that the Harris data for 1980 as well as 1984 are significantly higher than the SPA'82 data, so that one is looking at an across-time phenomenon and not one related to a marked upsurge in participation.

3) Question-Wording Differences:

There are some significant differences in the question wording in the two surveys, particularly regarding which activities are combined in the question definition. As can be seen in Table 2, we find the following contrasts in activity definitions:

Harris 1984	SPA'82
1. Plays and musicals, pantomime and other theatre	4. Musicals and operettas 5. Non-musical stage plays
2. Art museums (with examples)	7. Art museums
3. Opera or musical theatre	3. Opera 4. Musicals and operetta
4. Ballet, modern dance, folk/ethnic	6. Ballet Modern (separate SRC survey) Folk/ethnic (separate SRC survey)
5. Classical music/symphony	2. Classical music (includes choral music)

The Harris survey questions combine plays and musicals, and they combine opera and musical theatre (thus allowing attendance at a musical the opportunity to be counted in two separate questions). The Harris dance question also combines ballet, modern dance and folk/ethnic dance into a single question; the three were asked separately in the SPA'82 follow-up survey. The SPA'82 survey question, on the other hand, may produce higher estimates on two items because they explicitly include (1) operetta with musical theatre and (2) choral music with classical concerts.

One way of at least partially resolving these question discrepancies is to total the figures for the two or three separate SPA'82 items to make them equivalent to Harris -- at least theoretically. Thus, we can combine the SPA'82 items on plays and musicals and on opera and musical theatre; for the Harris item on ballet, modern dance and folk/ethnic dance, we can accomplish this goal only by including parallel items included in the University of Maryland national surveys done in 1983 and 1984. In these national surveys, also done by telephone, separate questions were included on modern dance and on folk/ethnic dance performances.

The result of these combinations is shown in the second and third sets of columns in Table 3. In Table 3, it can be seen that even with these recalibrations, the two surveys diverge widely. The direction of the differences is quite consistent -- with the Harris survey showing far higher figures. Thus, 60% of Harris' respondents report theatre attendance in the previous year, compared to the 23% of SPA'82 respondents who reported that in the previous 12 months they had either attended a musical or play (and subtracting out the proportion who did both and would otherwise be doubly counted). In the case of museum visits, the Harris data show 58%, which is more than twice as high as the 22% in the SPA'82 survey. While 28% of

Harris' respondents reported attending opera or musical theatre, the equivalent figure for SPA'82 is 20% (combined). For dance, the Harris figure is 28%, the SPA'82 (combined) figure 13% and for classical concerts we find Harris at 29% and SPA'82 at 13%.

These differences are well beyond not just the .01 but the .001 statistical significance level, and are thus not due to chance. They are not due to a recent surge in attendance, for it can be seen in the figures in parentheses in Table 3 that Harris was reporting only slightly lower attendance in his 1980 arts survey. Thus, the higher Harris figures are found prior to the 1984 survey as well.

These considerably higher differences in reported participation levels in the Harris data are not just confined to performance attendance data. As shown in Table 4, the Harris figures for self -participation in various art forms are also markedly higher. It should be noted that there are even more serious question-equivalence problems with these self-performance activities than with the attendance data. Moreover, the Harris data use a broader time frame, including activities done "at least every once in a while", which may be perceived by most respondents as extending beyond the one year time frame used in the SPA'82 questions. (At the same time, the differences in columns 1 and 2 of Table 3, suggest that the yearly and more general time frames in Table 4 should only differ by about 10-20%.)

In summary, it would appear that question wording and definition per se also do not seem to account for the large differences in reporting levels in Tables 3 and 4. However, the question filter may have had some unknown effect in the higher Harris figures. We turn now to a factor that does seem to produce more of a difference.

Table 4: Self-Reported Participation in Arts-Related Activities

Harris
Question: Let me read you some activities that some people do at least every once in a while. Please tell me whether you yourself do each of these activities at least every once in a while, or not.

SPA'82
Questions: See Table 2

	Personally Participate in:	
	Harris 1984	SPA'82* and SRC'83,'84
Engage in photography	47	11
Do needlepoint, weaving, or other handwork	44	32
Play a musical instrument	31	(21)
Paint, draw, or engage in graphic arts such as etching	29	10
Write stories or poems	25	6
Sing in a choir or other choral group	22	(10)
Dance ballet or modern dance	21	(7)
Dance folk or ethnic dance	17	(7)
Make pottery or ceramics	17	13
Make sculpture or work with clay	9	NOT ASKED
Work with a local theater group	7	3

* Time frame reference: previous 12 months
( ) SRC survey

4) Data Weighting

Both the Harris and SPA'82 were weighted to reflect population totals. The Census Bureau weights reflected the 1982 Census population counts; it is not clear what population frame of reference the Harris data employ. However, as Table 5 shows, the two samples do not diverge much on the factors for which the Harris data have been weighted -- namely age, sex and race; no difference is greater than 3 percentage points. The two samples are also relatively close on the factors of region, urbanicity and generally on income.

However, for level of education, the factor that the SPA'82 data clearly show makes the most difference in arts attendance, there is a serious departure. The Harris survey apparently interviewed only 49 respondents with less than a high school degree, which Harris reports as representing only 4% (actually 3.3%) of his sample. Yet the Census Bureau puts the percentage with only a grade school degree at 12% and another 13% with 9-11 years of education; both groups, then, constitute more than a quarter of the population. With less-educated respondents being so seriously underrepresented, it should not be surprising to find the Harris arts participation figures much higher.

Nonetheless, even this educational discrepancy does not account for most of the differences in results. Table 6 arrays the educational level differences within each survey, thus directly comparing the participation rates of grade school educated, college-educated, etc. across each survey. While the comparison is not exact because the Harris data are for the ever attend responses rather than for attending in the last year. We have seen in Table 2 that these differences between Harris ever attend vs. yearly estimates are not great (being 5 to 7 percentage points). Yet, as Table 6

Table 5: Demographic Composition of the Sample

	Harris 1984		SPA'82
	Number of Interviews	Weighted % of Total	Weighted % of Total
Nationwide	1504	100	100%
Region			
East	382	25	26
Midwest	390	26	27
South	450	30	29
West	282	19	19
Size of Place			
Cities	468	32	27
Suburbs	663	44	41
Town/rural	373	24	31
Age			
18-29 yrs	442	30	28
30-49 yrs	626	32	35
50-64 yrs	270	21	21
65 + yrs	160	16	16
Education			
8th grade	49	4	12
9-11th grades	not reported		13
High school graduate	676	47	38
Some college	392	25	19
College graduate	381	23	18
Sex			
Men	718	46	47
Women	786	54	53
Race			
White	1309	84	86
Black	124	10	10
Hispanic	71	6	4
Income			
$7,500 or less	135	13	-
$7,501-$15,000	216	18	-
$15,001-$25,000	349	19	-
$25,001-$35,000	297	16	-
$35,001-$50,000	210	14	-
$50,001 and over	166	10	-

Table 6: Differences in Attendance by Education Levels: Harris'84 and SPA'82

	Theatre		Art Museums		Opera, Musical Theatre		Classical Concerts	
	Harris'84	SPA'82	Harris'84	SPA'82	Harris'84	SPA'82	Harris'84	SPA'82
8th grade	42	7	27	5	19	6	9	3
High school graduate	54	16	46	16	22	14	22	8
Some college	77	32	70	33	44	28	42	18
College graduate	88	50	78	49	55	43	57	34

*Harris question times four - ever attend
SPA'82 - attended last year

shows, the Harris data estimates continue to be double or up to 49 percentage points higher than the rates reported in SPA'82 for the equivalent educational categories.

Properly weighted Harris results by 1982 Census Bureau counts do reduce Harris estimates and in the expected downward direction; for example, after proper educational weighting, Harris' classical music attendance moves from 34% to 28% and movie attendance from 78 to 67%.

While properly weighted Harris data do come closer to the SPA'82 data, they remain significantly different from each other even after these factors are taken into account.

Conclusions:

We have examined several factors that may explain the far higher arts participation rate figures in the 1984 Harris study data. Three of the factors that were reviewed did account for much of the discrepancy:

1) The use of the "ever go" rather than "last 12 months" time frame in the initial Harris question.
2) The inclusion of multiple activities (opera and musicals; ballet and modern dance and folk/ethnic dance) in some of the Harris questions.
3) The underrepresentation of respondents with less than a high school degree in the Harris sample -- as well as the failure generally to weight the Harris data by the proportion of respondents in various educational categories in the population.

The possibility that the Harris figures might be higher because of question context effects was also raised, but not thought to be as major a factor as those listed above. The activity definitions in the wording of the questions was not otherwise considered to be a major source of higher reporting levels.

Thus, while a good portion of the variance in results can be explained by these factors, much of it cannot be. The three factors noted above each account for higher reporting levels of about 10-20% magnitude, while the comparisons in Table 3 total up to 100% and beyond. As Table 6 shows, the proportions in the Harris survey continue to be markedly higher for the same educational levels of respondents. Thus, there is some other major factor at work leading to the discrepant figures.

One way of identifying such a factor is through a separate national study using essentially the same methods as both the Harris and SPA'82 surveys. Such a national survey was conducted by the Survey Research Center of the University of Maryland in June of 1983 and in January of 1984. That survey used the same field data collection mode as the Harris study -- the telephone. It used the same activity definitions as SPA'82, which as we have said, do correspond fairly closely to the Harris questions. The one factor that may have been different was the response rate -- the Survey Research Center's study achieved a response rate of over 70%.

It is perhaps for that reason that the attendance figures for both of these follow-up surveys were generally within a few percentage points of those from SPA'82. The data are shown in Table 7. These convergences hold true despite the relatively small sample size of these two SRC surveys -- about 500 respondents each. We have, then, been able to obtain comparable results to SPA'82 with a more recent sample done strictly by telephone.

Thus, we are left with such external factor explanations as the respondent selection procedures and response rates for the Harris survey. As noted earlier, we expect that while no data are provided in the Harris report on these factors, standards on such methodological matters are much more relaxed in commercial surveys. Surveys done with careful probability methods and higher response rates are more expensive to conduct, and costs

Table 7: Basic Comparisons of SPA'82 Results with Survey Research Center Results

% Attending	Attended Last Year		
Questions	SPA'82	Survey Research Center University of Maryland	
		June '83	Jan '84
Jazz	10%	9%	10%
Classical Music	13	11	16
Opera	3	3	2
Musicals	19	16	21
Plays	12	11	11
Ballet	4	7	7
Art Museums	22	27	32
Reading	56	55	53
Any other music performance	NA	NA	35
Other dance performance	NA	9	9
Modern dance	NA	3	5

NA - Question Not Asked

must be kept to a minimum in most commercial surveys. Moreover, the results from telephone and personal interviews usually match population quotas well; and it may be argued that, if people who respond to these surveys seem little different from those who refuse or are hard to reach, the extra cost for higher response rates would not be justified.

In this case, however, the behavior under study appears to be much more sensitive to relaxation in respondent selection procedures. It is not unlikely that people who take part in these surveys are more interested in the arts than those who do not take part, and are thus more likely to be active in the arts, or to report being active, as well.

If so, this would not be the first case of far higher participation figures from a commercial survey organization compared to those from an academic agency or the Census Bureau. The data in Table 8 come from seven surveys conducted between 1960 and 1982 on the public's recreational participation. Clearly the most divergent data in Table 8 are from the 1977 survey—one conducted by (another) well-known commercial market research firm. While there is a general tendency for higher recreational participation in later years, the figures for the 1982 survey (also conducted by the Census Bureau) are again markedly lower than those from 1977. Analysts at the National Park Service, which sponsored these recreational studies, are convinced the cause was not only the low response rate (under 50%) in the 1977 study, but also some selection bias which allowed more active respondents into the sample frame.

For now, that selectivity factor appears to be the most plausible explanation we have for the data divergences on arts participation. With their longer history and more careful attention to methodological detail, the Census Bureau figures should be a more trustworthy source than commercial survey data.

That does not mean that the Harris data do not provide valid insights into the correlates of participation. Indeed, their relations of participation to demographic background factors (e.g., education, age) are generally similar to those from SPA'82. It may also be the case that the Harris data do provide valid perspective on trends in participation (i.e., correlations with the factor of time). It would appear in this instance the Harris surveys have asked the same questions consistently across time; whether their other field procedures have also remained constant is not known. We will feel much more comfortable with the Harris evidence on trend data, however, if they can be replicated with data from the 1985 SPA survey -- i.e., SPA'85, which is being conducted by the Census Bureau.

Table 8: **Activity Participation Rates Across Six Surveys***

	Percent of Participants					
	1960*	**1965***	**1970**	**1971**	**1972**	**1977**
Picnicking	53	57	48	49	51	72
Driving for pleasure	52	55	-	-	49	69
Sightseeing	42	49	-	-	44	62
Visiting zoos, fairs, rodeos, amusement parks	-	-	-	-	33	73
Swimming	45	48	44	46	-	-
o Outdoor pool swimming	-	-	-	-	21	63
o Other swimming outdoors	-	-	-	-	34	46
Walking for pleasure	33	48	30	30	44	68
Playing outdoor games or sports	30	38	33	12	29	56
o Golf	-	9	-	9	6	16
o Tennis	-	6	-	7	8	33
Fishing	29	30	28	-	30	53
Hunting	-	-	-	-	14	19
Attending outdoor sports events	24	30	35	-	23	61
Boating	22	24	24	25	17	34
o Canoeing	2	3	-	-	4	16
o Sailing	2	3	-	-	3	11
Bicycling	9	16	19	22	20	47
Nature walks	14	14	17	30	21	50
o Bird watching	-	5	4	-	7	-
o Bird/wildlife photography	-	2	3	-	3	-
Attending outdoor concerts, etc.	9	11	35	-	10	41
Camping	8	10	20	17	-	-
o Developed camp ground	-	-	-	-	13	30
o Remote or wilderness area	-	-	-	-	7	21
Horseback riding	6	8	9	-	6	15
Hiking	6	7	-	7	7	28
o Mountain climbing	1	1	-	-	-	28
Waterskiing	6	6	-	-	5	16
Off-road driving (motorcycles/ other vehicles)	-	-	-	-	8	26
Other activities not listed	5	-	6	-	30	-

*** For 3 month period, not 12 month period.**

* Source: The Third Nationwide Outdoor Recreation Plan, Appendix II, Survey Technical Report 4, Independent Analyses of General Population and Federal Estate Visitor Survey Data, U.S. DEPARTMENT OF THE INTERIOR, Heritage Conservation and Recreation Service, December 1979.

APPENDIX C

Detailed Occupation Codes
Census Occupation Codes and Reduced Chapter 4 Occupation Codes

Attachment 1 to$^{\text{C-1}}$ Subroutine D (see Step ⑤)

U.S. DEPARTMENT OF COMMERCE
Bureau of the Census
Washington, D.C. 20233

October 1975

National Crime Survey

Occupation Classification

Census Code	PROFESSIONAL, TECHNICAL, AND KINDRED WORKERS
001	Accountants
002	Architects
	Computer specialists
003	Computer programmers
004	Computer systems analysts
005	Computer specialists, n.e.c.
	Engineers
006	Aeronautical and astronautical engineers
010	Chemical engineers
011	Civil engineers
012	Electrical and electronics engineers
013	Industrial engineers
014	Mechanical engineers
015	Metallurgical and materials engineers
020	Mining engineers
021	Petroleum engineers
022	Sales engineers
023	Engineers, n.e.c.
024	Farm Management Advisors
025	Foresters and conservationists
026	Home management advisors
	Lawyers and judges
030	Judges
031	Lawyers
	Librarians, archivists, and curators
032	Librarians
033	Archivists and curators
	Mathematical specialists
034	Actuaries
035	Mathematicians
036	Statisticians
	Life and physical scientists
042	Agricultural scientists
043	Atmospheric and space scientists
044	Biological scientists
045	Chemists
051	Geologists
052	Marine scientists
053	Physicists and astronomers
054	Life and physical scientists, n.e.c.
055	Operations and systems researchers and analysts

Census Code	PROFESSIONAL, TECHNICAL, AND KINDRED WORKERS-Continued
056	Personnel and labor relations workers
	Physicians, dentists, and related practitioners
061	Chiropractors
062	Dentists
063	Optometrists
064	Pharmacists
065	Physicians, medical and osteopathic
071	Podiatrists
072	Veterinarians
073	Health practitioners, n.e.c.
	Registered nurses, dietitians, and therapists
074	Dietitians
075	Registered nurses
076	Therapists
	Health technologists and technicians
080	Clinical laboratory technologists and technicians
081	Dental hygienists
082	Health record technologists and technicians
083	Radiologic technologists and technicians
084	Therapy assistants
085	Health technologists and technicians, n.e.c.
	Religious workers
086	Clergy
090	Religious workers, n.e.c.
	Social scientists
091	Economists
092	Political scientists
093	Psychologists
094	Sociologists
095	Urban and regional planners
096	Social scientists, n.e.c.
	Social and recreation workers
100	Social workers
101	Recreation workers
	Teachers, college and university
102	Agriculture teachers
103	Atmospheric, earth, marine, and space teachers
104	Biology teachers
105	Chemistry teachers
110	Physics teachers
111	Engineering teachers
112	Mathematics teachers
113	Health specialties teachers
114	Psychology teachers
115	Business and commerce teachers
116	Economics teachers
120	History teachers
121	Sociology teachers

C-3

PROFESSIONAL, TECHNICAL, AND KINDRED WORKERS-Continued

Census Code	
	Teachers, college and university-continued
122	Social science teachers, n.e.c.
123	Art, drama, and music teachers
124	Coaches and physical education teachers
125	Education teachers
126	English teachers
130	Foreign language teachers
131	Home economics teachers
132	Law teachers
133	Theology teachers
134	Trade, Industrial, and technical teachers
135	Miscellaneous teachers, college and university
140	Teachers, college and university, subject not specified
	Teachers, except college and university
141	Adult education teachers
142 (N)	Elementary school teachers
143	Prekindergarten and kindergarten teachers
144	Secondary school teachers
145	Teachers, except college and university, n.e.c.
	Engineering and science technicians
150	Agriculture and biological technicians, except health
151	Chemical technicians
152	Draftsmen
153	Electrical and electronic engineering technicians
154	Industrial engineering technicians
155	Mechanical engineering technicians
156	Mathematical technicians
161	Surveyors
162	Engineering and science technicians, n.e.c.
	Technicians, except health, engineering and science
163	Airplane pilots
164	Air traffic controllers
165	Embalmers
170	Flight engineers
171	Radio operators
172	Tool programmers, numerical control
173	Technicians, n.e.c.
174	Vocational and educational counselors
	Writers, artists, and entertainers
175	Actors
180	Athletes and kindred workers
181	Authors
182	Dancers
183	Designers
184	Editors and reporters
185	Musicians and composers
190	Painters and sculptors
191	Photographers
192	Public relations specialists and publicity writers
193	Radio and television announcers
194	Writers, artists, and entertainers, n.e.c.
195	Research workers, not specified

MANAGERS AND ADMINISTRATORS, EXCEPT FARM

Census Code	
201	Assessors, controllers, and treasurers; local public administration
202	Bank officers and financial managers
203	Buyers and shippers, farm products
205	Buyers, wholesale and retail trade
210	Credit and collection managers
211	Funeral directors
212	Health administrators
213	Construction inspectors, public administration
215	Inspectors, except construction; public administration
216	Managers and superintendents, building
220	Office managers, n.e.c.
221	Officers, pilots, and pursers; ship
222	Officials and administrators; public administration, n.e.c.
223	Officials of lodges, societies, and unions
224	Postmasters and mail superintendents
225	Purchasing agents and buyers, n.e.c.
226	Railroad conductors
230	Restaurant, cafeteria, and bar managers
231	Sales managers and department heads, retail trade
233	Sales managers, except retail trade
235	School administrators, college
240	School administrators, elementary and secondary
245	Managers and administrators, n.e.c.

SALES WORKERS

260	Advertising agents and sales workers
261	Auctioneers
262	Demonstrators
264	Hucksters and peddlers
265	Insurance agents, brokers, and underwriters
266	Newspaper carriers and vendors
270	Real estate agents and brokers
271	Stock and bond sales agents
280	Sales workers and sales clerks, n.e.c.
281	Sales representatives, manufacturing industries
282	Sales representatives, wholesale trade
283	Sales clerks, retail trade
284	Sales workers, except clerks, retail trade
285	Sales workers, services and construction

CLERICAL AND KINDRED WORKERS

301	Bank tellers
303	Billing clerks
305 (P)	Bookkeepers
310	Cashiers

CLERICAL AND KINDRED WORKERS-Continued

Census Code	
311	Clerical assistants, social welfare
312	Clerical supervisors, n.e.c.
313	Collectors, bill and account
314	Counter clerks, except food
315	Dispatchers and starters, vehicle
320	Enumerators and interviewers
321	Estimators and investigators, n.e.c.
323	Expediters and production controllers
325	File clerks
326	Insurance adjusters, examiners, and investigators
330	Library attendants and assistants
331	Mail carriers, post office
332	Mail handlers, except post office
333	Messengers and office helpers
334	Meter readers, utilities
	Office machine operators
341	Bookkeeping and billing machine operators
342	Calculating machine operators
343	Computer and peripheral equipment operators
344	Duplicating machine operators
345	Key punch operators
350	Tabulating machine operators
355	Office machine operators, n.e.c.
360	Payroll and timekeeping clerks
361	Postal clerks
362	Proofreaders
363	Real estate appraisers
364	Receptionists
	Secretaries
370	Secretaries, legal
371	Secretaries, medical
372 (Q)	Secretaries, n.e.c.
374	Shipping and receiving clerks
375	Statistical clerks
376	Stenographers
381	Stock clerks and storekeepers
382	Teacher aides, exc. school monitors
383	Telegraph messengers
384	Telegraph operators
385	Telephone operators
390	Ticket, station, and express agents
391	Typists
392	Weighers
394	Miscellaneous clerical workers
395	Not specified clerical workers

Census Code	CRAFT AND KINDRED WORKERS
401	Automobile accessories installers
402	Bakers
403	Blacksmiths
404	Boilermakers
405	Bookbinders
410	Brickmasons and stonemasons
411	Brickmasons and stonemasons, apprentices
412	Bulldozer operators
413	Cabinetmakers
415 (R)	Carpenters
416	Carpenter apprentices
420	Carpet installers
421	Cement and concrete finishers
422	Compositors and typesetters
423	Printing trade apprentices, except printing press
424	Crane, derrick, and hoist operators
425	Decorators and window dressers
426	Dental laboratory technicians
430	Electricians
431	Electrician apprentices
433	Electric power line and cable installers and repairers
434	Electrotypers and stereotypers
435	Engravers, exc. photoengravers
436	Excavating, grading, and road machine operators; exc. bulldozer
440	Floor layers, exc. tile setters
441	Blue-collar worker supervisors, n.e.c.
442	Forge and hammer operators
443	Furniture and wood finishers
444	Furriers
445	Glaziers
446	Heat treaters, annealers, and temperers
450	Inspectors, scalers, and graders; log and lumber
452	Inspectors, n.e.c.
453	Jewelers and watchmakers
454	Job and die setters, metal
455	Locomotive engineers
456	Locomotive firemen
461	Machinists
462	Machinist apprentices
	Mechanics and repairers
470	Air conditioning, heating, and refrigeration
471	Aircraft
472	Automotive body repairers
473 (S)	Automobile mechanics
474	Automobile mechanic apprentices
475	Data processing machine repairers
480	Farm implement

CRAFT AND KINDRED WORKERS

Census Code	
481	Heavy equipment mechanics, incl. diesel
482	Household appliance and accessory installers and mechanics
483	Loom fixers
484	Office machine
485	Radio and television
486	Railroad and car shop
491	Mechanic, exc. auto, apprentices
492	Miscellaneous mechanics and repairers
495	Not specified mechanics and repairers
501	Millers; grain, flour, and feed
502	Millwrights
503	Molders, metal
504	Molder apprentices
505	Motion picture projectionists
506	Opticians, and lens grinders and polishers
510	Painters, construction and maintenance
511	Painter apprentices
512	Paperhangers
514	Pattern and model makers, ex. paper
515	Photoengravers and lithographers
516	Piano and organ tuners and repairers
520	Plasterers
521	Plasterer apprentices
522	Plumbers and pipe fitters
523	Plumber and pipe fitter apprentices
525	Power station operators
530	Printing press operators
531	Printing press apprentices
533	Rollers and finishers, metal
534	Roofers and slaters
535	Sheetmetal workers and tinsmiths
536	Sheetmetal apprentices
540	Shipfitters
542	Shoe repairers
543	Sign painters and letterers
545	Stationary engineers
546	Stone cutters and stone carvers
550	Structural metal workers
551	Tailors
552	Telephone installers and repairers
554	Telephone line installers and repairers
560	Tile setters
561	Tool and die makers
562	Tool and die maker apprentices
563	Upholsterers
571	Specified craft apprentices, n.e.c.
572	Not specified apprentices
575	Craft and kindred workers, n.e.c.
580	Former members of the Armed Forces

Census Code	
	OPERATIVES, EXCEPT TRANSPORT
601	Asbestos and insulation workers
602 (T)	Assemblers
603	Blasters
604	Bottling and canning operatives
605	Surveyor helpers
610	Checkers, examiners, and inspectors; manufacturing
611	Clothing ironers and pressers
612	Cutting operatives, n.e.c.
613	Dressmakers, except factory
614	Drillers, earth
615	Dry wall installers and lathers
620	Dyers
621	Filers, polishers, sanders, and buffers
622	Furnace tenders, smelters, and pourers, metal
623	Garage workers and gas station attendants
624	Graders and sorters, manufacturing
625	Produce graders and packers, except factory and farm
626	Heaters, metal
630	Laundry and dry cleaning operatives, n.e.c.
631	Meat cutters and butchers, exc. manufacturing
633	Meat cutters and butchers, manufacturing
634	Meat wrappers, retail trade
635	Metal platers
636	Milliners
640	Mine operatives, n.e.c.
641	Mixing operatives
642	Oilers and greasers, exc. auto
643	Packers and wrappers, except meat and produce
644	Painters, manufactured articles
645	Photographic process workers
	Precision machine operatives
650	Drill press operatives
651	Grinding machine operatives
652	Lathe and milling machine operatives
653	Precision machine operatives, n.e.c.
656	Punch and stamping press operatives
660	Riveters and fasteners
661	Sailors and deckhands
662	Sawyers
663	Sewers and stitchers
664	Shoemaking machine operatives
665	Solderers
666	Furnace tenders and stokers, except metal

OPERATIVES, EXCEPT TRANSPORT-Continued

Census Code	
	Textile operatives
670	Carding, lapping, and combing operatives
671	Knitters, loopers, and toppers
672	Spinners, twisters, and winders
673	Weavers
674	Textile operatives, n.e.c.
680	Welders and flame-cutters
681	Winding operatives, n.e.c.
690	Machine operatives, miscellaneous specified
692	Machine operatives, not specified
694	Miscellaneous operatives
695	Not specified operatives

TRANSPORT EQUIPMENT OPERATIVES

701	Boat operators
703	Bus drivers
704	Conductors and operators, urban rail transit
705	Delivery and route workers
706	Fork lift and tow motor operatives
710	Rail vehicle operators, n.e.c.
711	Parking attendants
712	Railroad brake operators and couplers
713	Railroad switch operators
714	Taxicab drivers and chauffeurs
715 (U)	Truck drivers

LABORERS, EXCEPT FARM

740	Animal caretakers, exc. farm
750	Carpenters' helpers
751 (V)	Construction laborers, exc. carpenters' helpers
752	Fishers, hunters, and trappers
753	Freight and material handlers
754	Garbage collectors
755	Gardeners and groundskeepers, exc. farm
760	Longshore workers and stevedores
761	Timber cutting and logging workers
762	Stock handlers
763	Teamsters
764	Vehicle washers and equipment cleaners
770	Warehouse laborers, n.e.c.
780	Miscellaneous laborers
785	Not specified laborers

Census Code	
	FARMERS AND FARM MANAGERS
801 (W)	Farmers (owners and tenants)
802	Farm managers
	FARM LABORERS AND SUPERVISORS
821	Farm supervisors
822	Farm laborers, wage workers
823	Farm laborers, unpaid family workers
824	Farm service laborers, self-employed
	SERVICE WORKERS, EXC. PRIVATE HOUSEHOLD
	Cleaning service workers
901	Lodging quarters cleaners, except private household
902	Building interior cleaners, n.e.c.
903 (X)	Janitors and sextons
	Food service workers
910	Bartenders
911	Waiters' assistant
912	Cooks, except private household
913	Dishwashers
914	Food counter and fountain workers
915 (Y)	Waiters
916	Food service workers, n.e.c., except private household
	Health service workers
921	Dental assistants
922	Health aides, exc. nursing
923	Health trainees
924	Lay midwives
925	Nursing aides, orderlies, and attendants
926	Practical nurses
	Personal service workers
931	Flight attendants
932	Attendants, recreation and amusement
933	Attendants, personal service, n.e.c.
934	Baggage porters and bellhops
935	Barbers
940	Boarding and lodging house keepers
941	Bootblacks
942	Child care workers, exc. private household
943	Elevator operators
944	Hairdressers and cosmetologists
945	Personal service apprentices
950	Housekeepers, exc. private household

SERVICE WORKERS-Continued

Census Code	
	Personal service workers-Continued
952	School monitors
953	Ushers, recreation and amusement
954	Welfare service aides
	Protective service workers
960	Crossing guards and bridge tenders
961	Fire fighters
962	Guards
963	Marshals and constables
964	Police and detectives
965	Sheriffs and bailiffs

PRIVATE HOUSEHOLD WORKERS

980	Child care workers, private household
981	Cooks, private household
982	Housekeepers, private household
983	Launderers, private household
984 (Z)	Private household cleaners and servants

WORKERS NOT CLASSIFIABLE BY OCCUPATION

992	Armed Forces